

BLOOMSBURG UNIVERSITY OF PENNSYLVANIA



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Bloomsburg University of Pennsylvania

State System of Higher Education, Commonwealth of Pennsylvania

400 E. Second Street, Bloomsburg, PA 17815-1301

(570) 389-4000

<http://www.bloomu.edu>

Important Notices

The content of this catalog is for informational purposes only and not to be regarded as an irrevocable contract between the university and the student. Bloomsburg University reserves the right to amend any academic, administrative or disciplinary policy or regulation or fee described here without prior notice to persons affected.

Requirements for graduation, as well as curricula for degree programs, such as those requiring professional certification/ licensure, may change throughout the student's matriculation. Such changes will not be retroactively required; however, the student will have the option to choose the new program or requirement, if desired.

Exceptions may be necessary when changes in professional certification or licensure standard mandate changes in academic requirements or in university programs.

Bloomsburg University is accredited by the Middle States Association of Colleges and Schools, the National Council for the Accreditation of Teacher Education, the National League for Nursing; the Council on Education of the Deaf and the Council on Social Work Education. Programs of study have been approved by the Pennsylvania State Board of Education and the State Board of Nursing. In addition, the bachelor of science program in chemistry is approved by the American Chemical Society.

Bloomsburg University of Pennsylvania is committed to providing equal educational and employment opportunities for all persons without regard to race, religion, gender, age, national origin, sexual orientation, disabilities, Vietnam era veteran status or union membership. The university is additionally committed to affirmative action and will take positive steps to provide such educational and employment opportunities.

Produced by Marketing and Communication / University Advancement, Bloomsburg University of Pennsylvania

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The Undergraduate Catalog

1999-2001

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The University

Bloomsburg University, a member of Pennsylvania's State System of Higher Education, is a four-year coeducational public university founded 1839. Through the stages of its development from a normal school to a teachers college to a multipurpose state college and finally to a university in 1983, the institution had retained its emphasis on liberal and career education.

Bloomsburg is recognized as one of the best 100 public universities in the United States. Excellence, ranging from its seven NCAA championships to its international reputation in a number of its academic programs, is an attitude found throughout the faculty and staff.

Total enrollment is over 7,300, with an average incoming SAT of 1070 and class rank in the upper 25 percent; Bloomsburg admits one in seven applicants and has a four-year retention rate significantly higher than the national average. More than 80 percent are full-time students. About 65 percent are women. About 90 percent of Bloomsburg graduates are quickly placed in their chosen fields.

About 90 percent of Bloomsburg's students come from throughout Pennsylvania, creating a diverse mix of cultures and ideas. It's a place where friendships that last a lifetime begin. And it's a busy place — with more than 150 student organizations and activities, NCAA Division II athletic programs and a popular recreation center.

About 70 percent of all students receive some form of financial aid; average amount of aid is \$4,782 per year.

The university's Division of Continuing and Distance Education serves students through nondegree credit courses, noncredit minicourses, off-campus classes, credit for life experience and distance learning courses on public television.

Location

The Town of Bloomsburg, located in the Susquehanna River Valley, has a population of about 12,000 people. The central business district is just three blocks southwest of campus and includes more than 80 retail stores, restaurants, a theater and the Bloomsburg Fair in September. More stores, restaurants and theaters can be found along nearby Route 11 and at the Columbia Mall, northwest of town.

The university is within a one-hour drive from such cities as Hazleton, Williamsport, Wilkes-Barre and Scranton; 1.5 hours from Harrisburg; 2.5 hours from Philadelphia; 3 hours from New York City and Baltimore; and four hours from Pittsburgh and Washington, D. C.

If you are coming from...

East of Bloomsburg: Use I-80 west to Exit 35A south.

West of Bloomsburg: Use I-80 east to Exit 35 south.

South of Bloomsburg: From Central Pennsylvania, take Routes 11 and 15 north; from southeast Pennsylvania, take Northeast Extension of the Pennsylvania Turnpike (I-476) to I-80 west to Exit 35A south.

North of Bloomsburg: From the Scranton/Wilkes-Barre area, take I-81 south to I-80 west to Exit 35A south. From the Williamsport area, take I-180 south to I-80 east to Exit 35 south.

From Exit 35 south, take Route 487 south and follow signs to campus, approximately one mile.

Faculty and Staff

With a total of about 1,000 employees, Bloomsburg University has 378 full-time faculty, 73 percent of whom hold doctoral degrees and 72 per-

cent of whom are tenured. The staff is organized into four divisions: Academic Affairs, Administration, Student Life and University Advancement. Governance is through the State System's Board of Governors and through the university's Council of Trustees.

Academic Facilities

The new **Harvey A. Andruss Library** opened in May, 1998 with more than 400,000 volumes and government documents, 1,700 current periodicals, 1.9 million units of microtext and other audiovisual material and equipment, as well as 32 newspapers and on-line bibliographies and full-text databases - provides resource support for the university's academic programs. Andruss Library is also home to the university's graduate studies and grants offices.

Computing Facilities: The university has a strong commitment to technology with current machines and software throughout the campus. Nearly all computers are networked and connect to the Internet. All faculty have personal computers and e-mail accounts. Network uptime is nearly 100 percent and all computers are supported by technical staff from Academic Computing and Computer Services. Student computing facilities are located throughout the campus. There are over 500 computers and over 25 laser printers in labs, classrooms and general-access work areas. Super IMP and INP stations are available for lectures.

The **Francis B. Haas Center for the Arts** includes an art gallery and a 2,000-seat auditorium with facilities for musical and dramatic productions, as well as classroom instruction.

Nelson Field House, located on Bloomsburg University's upper campus, has classrooms and offices for use by the health/physical education and athletic staffs. It also serves as home for most of the university's indoor athletic events. The facility has a 3,000-seat arena for all home basketball and wrestling events, an indoor track, indoor tennis courts, an Olympic-size swimming pool, handball/racquetball courts, as well as training, conditioning and fitness facilities.

Instructional buildings include:

Bakeless Center for the Humanities, housing classrooms and offices for liberal arts programs; **Navy Hall**, with classrooms, clinics and offices for the departments of Exceptionalities and Audiology; **Hartline Science Center**, with laboratories, classrooms and offices for the science departments;

Sutliff Hall, which houses the College of Business and includes a specialized computer lab capable of running a medium-sized corporation; **Old Science Hall**, with studios, classrooms and offices for the department of anthropology, art history and languages and cultures and the **McCormick Center for Human Services**, equipped with a satellite receiving dish and containing School of Education and nursing instructional facilities, television and radio studios, the audiovisual resources center, experimental laboratories, Institute for Instructional Technology, the University Forum, classrooms and faculty offices.

Degree Programs

Bloomsburg University offers 64 programs of study in the Colleges of Arts and Sciences, Business and Professional Studies and 19 degree programs and 11 supervisory certificate programs in the School of Graduate Studies.

Bachelor of Arts: Anthropology, Art History, Art Studio, Biology, Chemistry, Communication Studies, Criminal Justice, Economics, English, French, Geography, German, History, Humanities, Mass Communications, Mathematics, Music, Philosophy, Physics, Political Economics, Political Science, Psychology, Social Sciences, Social Welfare, Sociology, Spanish, Theatre Arts

Bachelor of Science: Accounting, Exercise Science, Biology, Chemistry, Clinical Chemistry, Computer and Information Science, Computer and Information Systems, Earth Science, Geology, Health Physics, Interpreting, Mathematics, Medical Imaging, Medical Technology, Natural Sciences and Mathematics, Office Information Systems, Physics, Speech Pathology and Audiology

Bachelor of Science in Business Administration: Accounting, Business Economics, Finance, Management, Management Information Systems, Marketing

Bachelor of Science in Education: Business Education, Early Childhood Education, Elementary Education, Secondary Education, Special Education

Bachelor of Science in Nursing

Master of Arts: Art History, Art Studio, Communication

Master of Education: Biology, Business Education, Curriculum and Instruction, Elementary Education, Reading

Master of Science: Accounting, Audiology, Biology, Early Childhood Education, Education of the

Deaf/Hard of Hearing, Exercise Science and Adult Fitness, Instructional Technology and Speech Pathology

Master of Business Administration

Master of Science in Nursing

Governance

Board of Governors,

State System of Higher Education

F. Eugene Dixon Jr., chair

Kim E. Lyttle, vice chair,

R. Benjamin Wiley, vice chair

Syed R. Ali-Zaidi

Muriel Berman

Jeffrey W. Coy

Daniel P. Elby

Charles A. Gomulka

Eugene W. Hickok Jr.

Joy C. Leonard

F. Joseph Loeper

Tom Ridge

David M. Sanko

B. Michael Schaul

Jere W. Schuler

Patrick J. Stapleton

John K. Thornburgh

Christine J. Toretti

James H. McCormick, Chancellor

Council of Trustees

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David J. Cope, Titusville

James H. McCormick, Ex Officio

Kevin M. O'Connor, Plains

David J. Petrosky, Moscow

Ted Stuban, Berwick

Plus a student representative

President's Office

Jessica S. Kozloff, Ph.D., president

Adrianne Flack, M.Ed., director, pre-collegiate programs

Sydney Howe-Barksdale, J.D., director, social equity

Shane Williamson, M.S., director, multi-cultural center

Robert Wislock, D.Ed., executive assistant to the president, director, continuous improvement

Academic Affairs

Wilson G. Bradshaw, Ph.D., provost and vice president for academic affairs

John H. Abell, M.Ed., associate dean, continuing and distance education

M. Christine Alichnie, Ph.D., assistant dean, school of health sciences

Patricia M. Boyne, M.S., assistant dean, college of business

Tom L. Cooper, Ph.D., assistant vice president for academic affairs

Ronald DiGiondomenico, M.S.W., director, academic advisement

Robert Gates, Ed.D., assistant dean, school of education

Ann L. Lee, Ed.D., dean, college of professional studies

Hsien-Tung Liu, Ph.D., dean, college of arts and sciences

David K. Long, Ph.D., dean, college of business

Robert P. Marande, Ph.D., associate dean, college of arts and sciences

James F. Matta, Ph.D., director, research and sponsored programs

Hugh J. McFadden, Ed.D., director, planning, institutional research and information management

Wayne Mohr, M.A., director, TV and radio services and audio visual resources

John B. Pitcher, M.L.S., assistant director, library automation and technical operations

Patrick J. Schloss, Ph.D., assistant vice president and dean, graduate studies and research

Kenneth D. Schnure, M.S., registrar

Madhav P. Sharma, Ph.D., director, international education

Karen L. Slusser, B.A., assistant director, planning, institutional research and information management

G. Michael Vavrek, Ph.D., dean, continuing and distance education

Peter B. Walters, M.A., director, accommodative services

Laura Youtz, M.A., assistant registrar

Administration

Robert J. Parrish, Ed.D., vice president, administration

Robert W. Abbott, M.A., director, academic computing

Glenn Bieber, M.S., director, computer services

Margaret L. Boykin, director, university police

Robert L. Campbell, assistant director, physical plant

Tom Contos, M.Arch., assistant director, planning and construction

Vincent P. DiLoretto, director, custodial services

Robert D. Hakim, B.A., assistant director, purchasing

Margaret Manning, M.S., assistant vice president and director, human resources and labor relations

Thomas Messinger, B.S., director, physical plant

James F. Michael, assistant director, human resources and labor relations

Joseph C. Quinn, director, purchasing

Michael Robatin, comptroller, accounting, collections and office management and director, business office

Barbara L. Stiner, B.S., director, budget and administrative services

Claudia J. Thrush, M.S., C.P.A., assistant comptroller, accounting, collections and office management

Student Life

H. Preston Herring, Ph.D., vice president, student life

Carol G. Barnett, M.A., director, career development center

John Bieryla, M.A., assistant director, financial aid

Judy Coleman-Brinich, M.Ed., M.S., director, campus child center

Lisa Cacciapaglia, M.Ed., associate director, residence life

Kambon Camara, M.S., director, counseling center

James Christy, M.Ed., associate director, admissions

JoAnne Day, M.Ed., director, academic internships

Jean Downing, M.S., director, S.O.L.V.E.

Jeanne R. Fitzgerald, M.S., assistant director, career development center

Mary Gardner, director, athletics

Jimmy Gilliland, M.A., assistant director, student activities, Kehr Union

David A. Hill, Ed.D., comptroller, community activities, Kehr Union

Barry L. Jackson, Ph.D., director, drug, alcohol and wellness network

Kathy Johnson, M.S., assistant director, campus child center

Christopher J. Keller, director, admissions

Tom Kresch, associate director, residence life

Tom Lyons, M.A., director, financial aid

James G. McCormack, M.B.A., assistant director, administration and technology, residence life

Lynda Michaels, M.Ed., assistant director, admissions and coordinator, orientation

Kathy Mulka, M.Ed., assistant director, admissions

Burton T. Reese, M.Ed., assistant director, athletics

Roy Smith, M.A., director, Quest, corporate institute

Linda Sowash, M.Ed., director, residence life

Mike Sowash, M.S., associate director, student activities, Kehr Union

Edwin Valovage, M.S., assistant director, residence life operations

Wayne E. Whitaker, M.S., assistant director, admissions and coordinator, minority recruitment

Donald W. Young, M.S., director, student standards and off-campus housing

University Advancement

Anthony M. Ianiero, M.Ed., vice president, university advancement and executive director, foundation

Susan R. Hicks, Ph.D., assistant director, development

Doug C. Hippenstiel, M.Ed., director, alumni affairs

James E. Hollister, B.S., director, media relations and marketing

Joan T. Lentczner, M.S., M.A., director university and community relations

Tom McGuire, B.A., director, sports information

Geoffrey Mehl, B.S., director, publications

John S. Mulka, D.Ed., special assistant to the vice president for university advancement and director, major gifts

Randall Presswood, M.F.A., director, performing arts facilities

History of the University

An academy "to teach the youth the elements of a classical education" was established in Bloomsburg in 1839. The academy continued with varied fortunes until 1856 when a charter was prepared and stock issued to reorganize as Bloomsburg Literary Institute. A building - now known as Carver Hall in memory of Henry Carver, principal at the time - was erected in 1867. Today, it is considered the university's landmark.

Largely through the efforts of J. P. Wickersham, superintendent of public instruction, Bloomsburg Literary Institute became Bloomsburg Literary Institute and State Normal School in 1869. The school continued under this name and organization until 1916 when it was purchased by the Commonwealth of Pennsylvania and named Bloomsburg State Normal School.

The emphasis at the Normal School changed during the early '20s from secondary and college preparatory courses for special teachers to full-time teacher education. This new thrust in the curriculum led to the adoption of the designation Bloomsburg State Teachers College in May 1927. The institution was authorized to grant a Bachelor of Science in Education, a degree which prepared students for teaching careers in elementary and secondary schools.

Under the administration of Dr. Francis B. Haas (1927-1939), great progress was made in the teacher education program including the addition of a new degree program in business education. Dr. Haas left Bloomsburg to accept an appointment as

superintendent of public instruction for Pennsylvania, the same post he had held from 1925 to 1927 prior to coming to Bloomsburg. Dr. Harvey A. Andruss, then dean of instruction and former director of the business education department, served as acting president from 1939 until January 1941, when the school's trustees unanimously elected him president, a position he held until his retirement in 1969.

During World War II, the U.S. Navy V-12 Officer Training Program was conducted on the campus, a service now commemorated by the name of Navy Hall. In 1957, the Division of Special Education was instituted. Major expansions in facilities, faculty and student body followed. Full-time undergraduate enrollment rose from 1,743 in 1960 to nearly 6,228 in 1998.

In 1960, the school's name was changed to Bloomsburg State College. Authorization was received shortly thereafter to grant a Bachelor of Arts for liberal arts programs in the humanities, social sciences and natural sciences and mathematics. Graduate study leading to a Master of Education also was inaugurated. In 1968, approval was received for a Master of Arts; in 1970, for a Master of Science; in 1976, for a Master of Business Administration; and in 1982, for a Master of Science in Nursing. A doctoral program in elementary education was initiated in 1982 in conjunction with Indiana University of Pennsylvania.

Bloomsburg is a comprehensive institution offering curricula in the liberal arts, business, nursing, allied health sciences and teacher education. Degree programs are offered at the associate, bachelor's and master's levels, in addition to the cooperative doctoral program. The institution's current title, Bloomsburg University of Pennsylvania, was officially adopted when Commonwealth legislation established the 14-member State System of Higher Education on July 1, 1983. Dr. James H. McCormick, Bloomsburg's president at the time, became the system's interim chancellor and later its first permanent chancellor.

In 1994, Dr. Jessica Sledge Kozloff was appointed the university's 18th president.

Harvey A. Andruss Library

A four-level structure encompassing 105,000 gross square feet, the Harvey A. Andruss Library is designed to fulfill the programmatic mission of a university library serving students, faculty and the surrounding community. The building was designed to provide:

A Program of Resources to bring together organize and distribute print, microform, digital and audiovisual resources

A Program of Information based on digital data transmitted throughout the Library, the campus, the community and beyond

A Program of Teaching to provide learning opportunities supporting the curriculum and reaching beyond the scope of credit courses

A Program of Leisure and Recreation to introduce students and the larger community to ideas and cultural events representing today's world community.

In providing a facility to advance these programs, the Harvey A. Andruss Library includes the following special features:

200 personal computers for public access with a capacity for 200 more

135 public access connections for the future plug-in of laptop computers

Word processing rooms with personal computers and printers on all levels

A 38-computer classroom and computer laboratory with an Integrated Multimedia Presentation Station

Study seating for 890 students, faculty and community patrons

22 group study rooms for 6-12 students with access to digital data, television and VCRs

A faculty study with assignable lockers

A graduate study with assignable lockers

A Browsing Collection reading area

A University Archives/Special Collections reading room

An extended hours study for student use when the library is closed

A special occasion meeting room with facilities for audiovisual and television access

A faculty committee reading room for the university promotion and tenure committees

Areas for eating and drinking

Stack space for more than 500,000 volumes

Compact microfilm storage for 120,000 reels

Up-to-date reader/printers for viewing more than 1.9 million microforms in the library's collections

Open access to current periodicals

Compact book shelving in work and storage areas

Photocopying/computer printing rooms on all levels

A porch reminiscent of the Long Porch from the "old" Waller Hall

Three Tiffany and four Spence stained-glass windows from the "old" Waller Hall

An exhibits lobby for local, regional and national traveling exhibitions

Handicapped-accessible restrooms

Intercoms on all levels for queries to the circulation and reference desks and access to the University Police

A synchronized clock system

Air-handling and humidity control systems designed to regulate environmental conditions for book and microform preservation

Centralized security alarm, fire alarm and smoke detection systems

Security monitors

Motion detectors in areas requiring special security

Icons of Learning

The library's stained-glass windows were all acquired between 1918 and 1920, thanks to the efforts of Professor O.H. Bakeless, who was secretary of the Memorial Committee. He was responsible for soliciting the necessary funds for the windows from students, faculty and alumni.

The three semi-circular windows were made by the Louis Tiffany Studios of New York City. They were purchased at a cost of \$3,500, with funds coming from the Semi-centennial Memorial Fund. The windows represent Truth and Virtue and were ordered in 1919 and completed in 1920. They are installed on the second floor of the library. The semi-circular title window surrounds the entrance to the University Archives/Special Collections Reading Room on the third floor.

These windows were presented to the Bloomsburg State Normal School by its alumni to commemorate the 50th class of teachers and to honor the longtime service of Principal David J. Waller, who was retiring.

The four rectangular windows in the University Archives/Special Collections Room were made by the George W. Spence Company of Boston at a cost of nearly \$400. The first two, Wisdom, from the Calliepiean Literary Society and Knowledge, from the Philologian Literary Society, were purchased and made in 1918. The second two, Temperance, from the YMCA and Virtue, from the YWCA, were ordered and received in 1919. Professor Bakeless

felt that the windows would provide the right atmosphere to put students in a more reflective and studious mood.

Administration

John B. Pitcher, Assistant Director for Automation and Technical Operations

Faculty

Deborah E. Bohm, Temporary Replacement: Cataloger, Reference Librarian, Subject Specialist for the Social Sciences

Robert A. Dunkelberger, University Archivist, Coordinator of Special Collections, Reference Librarian

William J. Frost, Database Coordinator, Reference Librarian, Business Liaison

Alexander Hartmann, Temporary Reference Librarian, Subject Specialist for Education, 1998/99 academic year

Marilou Z. Hinchcliff, Coordinator of Cataloging; Faculty Chairperson

Maria Silva Kuhn, Coordinator of Collection Development and Acquisitions

Carolyn H. Lindberg, Temporary Reference Librarian, Subject Specialist for the Natural Sciences and Nursing, 1998/99 academic year

Janet Olsen, Administrative Services Librarian, Documents Librarian

Nancy S. Weyant, Coordinator of Reference Services, Subject Specialist for the Humanities

Stephen R. Wiist, Coordinator of Access Services

Campus directory

Department/Program	Room	Location	Extension
<i>Note: Bloomsburg's area code is 570; all extensions are from the 389 exchange</i>			
Academic Advisement	12	Ben Franklin	4271
Academic Affairs, Provost and Vice President		Carver	4308
Academic Computing	11	Ben Franklin	4100
Academic Internships	15	Ben Franklin	4678
Academic Support Services	B6	Luzerne	4199
Accommodative Services	12	Ben Franklin	4491
Accounting, Department of	219	Sutliff	4755
Accounts Payable	18	Waller	4017
Act 101/EOP	14	Waller	4492
Administration, Vice President	15	Waller	4115
Admissions, Office of	10	Ben Franklin	4316
Allied Health Sciences	105	Hartline	4130
Alumni Affairs		Fenstermaker	4058
Anthropology, Department of	306	Old Science	4959
Art, Department of	213	Old Science	4646
Audiology/Speech Pathology, Department of	1	Navy	4436
Audio-Visual Resources	1231	McCormick	4231
Biological and Allied Health Sciences, Department of	126	Hartline	4136
Black Cultural Society	426	Kehr	4456
Business Education, Department of	212	Sutliff	4745
Business Office	40	Waller	4013
Career Development Center	101	Kehr	4070
Chemistry, Department of	224	Hartline	4894
Child Center		Elwell	4597
Clinical Services	1	Navy	4436
College of Arts and Sciences	109	Waller	4410
College of Business	212	Sutliff	4745
College of Professional Studies	3106	McCormick	4005
Communication Studies, Department of	1103	McCormick	4631
Computer and Information Systems, Department of	221	Sutliff	4560
Computer Services	112	Ben Franklin	4255
Development		Dev. Ctr.	
Developmental Instruction, Department of	14	Waller	4492
Drug/Alcohol Awareness	324	Kehr	4980

Early Childhood and Elementary Education, Department of	3217	McCormick	4030
Economics, Department of	313	Bakeless	4355
Educational Technology Center	2219	McCormick	4642
Elwell Residence Hall			4315
Engineering/Liberal Arts Program	54	Hartline	4148
English, Department of	119	Bakeless	4427
Exceptionality Programs, Department of	101	Navy	4199
Finance and Business Law, Department of	221	Sutliff	4560
Food Service		Scranton	4484
Geography and Geosciences, Department of	1165	Hartline	4108
Graduate Studies and Research, Office of		Andruss	4015
Grants Accounting	17	Waller	4022
Graphic Art Studio	G24	Old Science	4193
Haas Center for the Arts			4284
Health, Physical Education and Athletics, Department of	239	Nelson	4376
History, Department of	105	Old Science	4159
Honors Program	007	Bakeless	4713
Human Resources/Labor Relations, Office of	134	Waller	4415
Information Center		Kehr	3900
Institute for Interactive Technology	1210	McCormick	4506
Instructional Technology, Department of	1210	McCormick	4506
Interdisciplinary Studies	G7	Old Science	4859
International Education	B7	Luzerne	4973
Internships	15	Ben Franklin	4678
Intramural Sports		Rec Center	4885
Languages and Cultures, Department of	227	Old Science	4750
Library, Harvey A. Andruss		Andruss	4224
Luzerne Residence Hall			4305
Lycoming Residence Hall			4320
Magee Center		Bloomsburg	4420
Management, Department of	221	Sutliff	4385
Marketing and Communications, Office of	105	Waller	4043
Marketing, Department of	221	Sutliff	4385
Mass Communication, Department of	1124	McCormick	4836
Mathematics, Computer Science and Statistics, Department of	1106	McCormick	4504
Medical Technology Program	105	Hartline	4130
Montgomery Place Apartments			2900
Montour Residence Hall			4330
Monty's		Monty's	2525
Music, Department of	215	Haas	4289
Nelson Field House			4049
Nursing, Department of		McCormick	4600
Off-Campus Housing		Elwell	2751
Office Information Systems Program	212	Sutliff	4023
Orientation Office	16	Ben Franklin	4659
Outdoor Experiential Learning		Simon	4323
Performing Arts Facilities	103	Haas	4291
Philosophy, Department of	218	Bakeless	4331
Physics, Department of	55	Hartline	4149
Planning, Institutional Research, Information Management	139	Waller	4054
Political Science, Department of	213	Bakeless	4086

President, Office of the		Carver	4526
Psychology, Department of	2103	McCormick	4469
Quest		Simon	4323
Reading Clinic	104	Navy	4092
Recreation Center		Rec Center	4772
Registrar, Office of	1	Ben Franklin	4263
Research Sponsored Programs		Andruss	4129
Residence Life	G16	Elwell	4089
School of Education	3105	McCormick	4865
School of Health Sciences	3109	McCormick	4423
School Science/Math Association	2225	McCormick	4915
Schuylkill Residence Hall			4327
Scranton Commons			4482
Secondary Education Program	3217	McCormick	4030
Social Equity Office	103	Ben Franklin	4528
Sociology, Social Welfare and Criminal Justice, Department of	2120	McCormick	4243
SOLVE		Bloomsburg	4788
Speech, Hearing, Language Clinic	1	Navy	4436
Sports Information, Office of	104A	Waller	4413
Student Activities	339	Kehr	4845
Student Health Center	324	Kehr	4451
Student Life	326	Kehr	4062
Student Standards	G49	Elwell	4734
Telecommunications	40A	Waller	4406
The Voice	428	Kehr	4457
Theatre Arts Program	1103	McCormick	4631
Tutorial Services	G07	Luzerne	2720
TV-Radio Services	1231	McCormick	4231
University Advancement	115	Waller	4524
University Records Center		Andruss	4814
University Store		Bookstore	4102
University and Community Relations	104	Waller	4112
Upward Bound		Wilson	4289
Volunteer Services		Bloomsburg	4455
WBUQ-FM		McCormick	4686
Women's Studies	115	Bakeless	2728
Work-Study Program	19	Ben Franklin	4498

College of Arts and Sciences

Hsien-Tung Liu
Dean, College of Arts and Sciences

Arts and Sciences

The College of Arts and Sciences includes curricula in 20 departments with the expressed intention of providing a quality liberal arts education. These curricula encourage broad exposure to knowledge, ideas and intellectual process. The liberal arts philosophy places strong emphasis on cultural and scientific knowledge and on essential skills such as reading, writing, quantitative and critical analysis and the use of technology absolutely necessary for the preparation for any particular profession. Degree programs lead to a Bachelor of Science or a Bachelor of Arts or both.

Bloomsburg University was first authorized to offer the Bachelor of Arts in 1960 and the Bachelor of Science in 1963. Today, the college comprises nearly 47 percent of the students and two thirds of the faculty at Bloomsburg University. Practically all General Education courses - a certain number of these courses are required of all students of the university seeking a baccalaureate degree - are offered through Arts and Sciences.

The Bachelor of Arts offers the student the opportunity for a liberal education through study in the humanities, the social sciences and the natural sciences and mathematics. The Bachelor of Arts is for majors in the academic disciplines of arts, humanities and social sciences. The Bachelor of Science provides the opportunity for a liberal education together with a specialization in a number of fields in the natural sciences. Liberal arts graduates are prepared for a wide range of future goals. Students who are undeclared or undecided about an academic major are encouraged to enroll in Arts and Sciences curricula. There are interdisciplinary studies or broad area programs.

All students must complete the general education requirements described in the general educa-

tion requirements section. Each student selects a major and fulfills the major requirements as stated at the beginning of the course descriptions for each of the 20 departments in Arts and Sciences. Several programs have more than one option for fulfilling the major requirements. For example, the allied health programs in medical imaging and medical technology include substantial clinical involvement. In addition to achieving an in-depth understanding of an academic discipline by completing the requirements of a major, students may gain knowledge in a second area by completing the minor requirements of another discipline. Each academic minor consists of a minimum of 18 semester hours of courses. The following disciplines offer academic minors: anthropology, art studio, art history, biology, computer science, economics, English, French, geography, German, history, mathematics, music, philosophy, physics, political science, psychology, sociology and Spanish. There are also interdisciplinary minors such as Latin American Studies and Women's Studies. Consult the area of interest in the catalog for course requirements.

Preprofessional and Career Advisement Committees offer special supplementary advisement to students. Members of these committees help students learn about admission requirements of professional schools or careers and select college courses in harmony with these requirements. Students interested in preprofessional or career advising should indicate this interest on the admission application to the university so that appropriate advisers may be notified.

As a rule, professional schools for dentistry, medicine, optometry, pharmacy, podiatry and veterinary medicine do not specify an undergraduate major, but they do specify minimum essential

courses, especially in the sciences and mathematics. These minimum requirements usually include courses in general chemistry organic chemistry, mathematics, biology and physics. High standards of undergraduate scholarship must be achieved if a student wishes to compete for admission to a professional school. One hundred percent of Bloomsburg University's graduates who apply to medical and dental schools are accepted when recommended by the Pre-Med Committee. Students anticipating these careers should contact the Department of Biological and Allied Health Sciences which provides faculty coordinators for preprofessional advisement. (Programs in allied health sciences, which require considerable clinical experience, e.g., medical imaging and medical technology, are also sponsored by this department.) There are guaranteed admission slots offered by the Philadelphia College of Osteopathic Medicine.

Students who intend to enter the legal profession need to be cognizant of the variations in entrance requirements for law schools. The Pre-Law Advisory Committee counsels students on course selection. Most law schools will consider applications from students with diverse majors, emphasizing the value of a thoroughly cultivated mind rather than a specific body of knowledge. Students interested in a law career or pre-law advisement should contact Dr. George Agbango in the Department of Political Science in the College of Arts and Sciences or Dr. Bruce Rockwood in the Department of Finance and Business Law in the College of Business.

Independent study provides an opportunity for the advanced student to pursue in-depth individualized study in a topic of special value or interest to the student. A limited number of independent study offerings are available each semester. Students interested in applying for independent study should develop a written proposal with their faculty sponsor. The proposed number of semester hours should be indicated in the proposal. The indepen-

dent study proposal, along with the name of the faculty sponsor, is submitted to the appropriate department for recommendation, then to the dean for final approval.

Academic Departments

The College of Arts and Sciences includes 20 academic departments. Chairpersons are elected on a three-year cycle and departments with more than 15 faculty members also name an assistant chairperson. During summer sessions, a faculty member is designated as the summer chair. While most departments enjoy full-time secretarial support, some departments share clerical staff and rely on part-time and student help. The academic departments in arts and sciences include:

- Department of Anthropology
- Department of Art
- Department of Biological and Allied Health Sciences
- Department of Chemistry
- Department of Communication Studies and Theatre Arts
- Department of Economics
- Department of English
- Department of Geography and Geosciences
- Department of Health, Physical Education and Athletics
- Department of History
- Department of Instructional Technology
- Department of Languages and Cultures
- Department of Mass Communications
- Department of Mathematics, Computer Science and Statistics
- Department of Music
- Department of Philosophy
- Department of Physics
- Department of Political Science
- Department of Psychology
- Department of Sociology, Social Welfare and Criminal Justice

ANT(46)

Anthropology

Administered by: Department of Anthropology
 College: College of Arts and Sciences
 Campus address: Old Science Hall
 Telephone number: (570) 389-4860
 Fax number: (570) 389-4459
 Department chair: David Minderhout
 Degree awarded: Bachelor of Arts

About the Program

Anthropology, the study of humankind, attempts to establish useful information and generalizations about people, their behavior and their cultural and biological origins to arrive at the fullest possible understanding of human diversity. Anthropology promotes global cultural awareness through classroom studies of cultures everywhere. Anthropology, in common with other sciences, is concerned with the formulation and testing of hypotheses or tentative explanations of observed human phenomena. Anthropology also has an important humanistic tradition.

At Bloomsburg University, anthropology is divided into three study areas: cultural anthropology, which studies ways of life in societies across the world; physical anthropology, which traces human origins and biological variability; and prehistoric archaeology, which seeks to explain human behavior by studying material remains from past cultures.

Additionally, the department offers two minors, one in anthropology and one in Latin American Studies.

Program Emphasis in Prehistoric Archaeology - The Anthropology Department features a special program emphasis in prehistoric archaeology. Students can enroll in multiple archaeology courses to gain a professional understanding of academic archaeology and archaeological method and theory.

The department offers summer field schools where methods and techniques in archaeological analysis are refined. During summers and upon graduation, students have many opportunities to find temporary or permanent employment in the field of archaeology both in the United States and abroad. The program has provided fieldwork and study in North America, Mesoamerica and South America.

Anthropology at Bloomsburg - The Department of Anthropology is dedicated to providing a quality undergraduate education in anthropology so that its graduates may go on to fulfilling professional careers in the discipline. To this end, the department offers an unusually wide variety of courses taught by nationally known faculty. Each student majoring in anthropology is expected to enroll in a core set of seven courses, including introductory courses in each of the three major subdisciplines of the field.

In addition, majors take an upper-level course on non-human primates, a research and writing course designed to teach library, writing and Internet skills and a rigorous senior-level course on anthropological theory. Each major is also expected to have practical hands-on experience in the discipline through an internship, an independent study or a field methods course. An additional 15 credits in elective courses fulfills the major. The anthropology faculty endeavor to know each of their students personally and will tailor the curriculum to individual student needs.

This curriculum is designed to prepare students for admission to graduate school in anthropology. Each year, approximately one-third of the seniors majoring in anthropology apply to graduate school, with 90 percent accepted at their first-choice institution.

To help these students be competitive in the discipline, the faculty strongly encourages student research opportunities. Students may conduct research in any of the subdisciplines of anthropology with the goal of presenting their research at a local, regional or national conference. Academic excellence in anthropology is rewarded through membership in Lambda Alpha, the national honorary society for anthropology.

Qualified anthropology majors are also encouraged to participate in the university's honors program. An active anthropology club and a monthly newsletter also support students' interest in the field.

Those students who do not choose to attend graduate school receive the same careful attention and preparation as those who do. Students are encouraged to increase their opportunities for employment through internships or, in the case of archaeology, employment while a student at local contract archaeology firms. These students are also encouraged to develop skills in computing, languages or other areas to help them reach employment goals. Anthropology majors have gone on to productive careers in business and government, with 85 percent of students finding meaningful employment within a year of graduation.

Required Courses

In addition to 54 semester hours of general education requirements, a total of 36 semester hours is required for a major in anthropology. An additional 38 semester hours of elective courses satisfies the 128-hour requirement for a bachelor's degree. The following courses are required:

- 46.200 Principles of Cultural Anthropology
- 46.210 Prehistoric Archaeology
- 46.220 Human Origins
- 46.385 Anthropology Research and Writing
- 46.405 Primates
- 46.470 History of Anthropological Thought and Theory

Choose one of the following four courses:

- 46.301 Field Archaeology
- 46.466 Independent Study in Anthropology
- 46.475 Field Methods in Cultural Anthropology
- 46.497 Internship in Anthropology

Elective Courses - Students may choose five courses, totaling 15 or more semester hours. At least 6 semester hours must come from each of the fol-

lowing two subdisciplines:

Archaeology

- 46.300 Archaeological Method and Theory
- 46.301 Field Archaeology
- 46.310 Aztecs and Mayans
- 46.311 Archaeology of Northeastern North America
- 46.312 South American Archaeology
- 46.340 Native North Americans

Cultural Anthropology

- 46.102 Anthropology and World Problems
- 46.260 Men and Women: An Anthropological Perspective
- 46.290 Race and Racism
- 46.320 Contemporary World Cultures
- 46.333 Ethnic Identity in the United States
- 46.350 Medical Anthropology
- 46.360 Pseudoscience
- 46.370 Indigenous Cultures of Modern Mexico
- 46.390 Socialization of the Child
- 46.440 Language and Culture
- 46.450 Peoples and Cultures of South America
- 46.466 Independent Study in Anthropology
- 46.475 Field Methods in Cultural Anthropology
- 46.480 Religion and Magic
- 46.495 Special Topics in Anthropology
- 46.497 Internship in Anthropology

Students contemplating graduate school are advised to take an introductory course in computer science.

Minor in Latin American Studies - In cooperation with the departments of History and Languages and Cultures, the department offers a 21-credit minor in Latin American Studies for students with an interest in the cultures of Mexico, Central and South America and the Spanish or French-speaking Caribbean. Six credits are in language courses, either Spanish or French. The remaining 15 credits are divided as follows.

A minimum of six credits from:

- 46.310 Aztecs and Mayas
- 46.312 South American Archaeology
- 46.333 Ethnicity in the United States
- 46.370 Indigenous Cultures of Modern Mexico
- 46.450 Peoples and Cultures of South America

- 46.495 Special Topics in Anthropology:
Mexico Study Abroad
- 46.495 Special Topics in Anthropology:
Peoples of the Caribbean
- 46.497 Internship in Anthropology (must be
related to the minor)

A minimum of three credits from:

- 42.142 Latin America: From European
Colonization to the Present
- 12.207 Hispanic Daily Life and Customs
- 12.211 Spanish Culture and Civilization
- 12.212 Spanish American Culture and
Civilization
- 12.213 Hispanics in the U.S.: Culture and
Literature
- 12.290 Spanish Studies Abroad (Latin
America and Caribbean only)
- 10.290 French Studies Abroad (Caribbean
only)
- 10.495 Special Topics (approved by adviser)
- 12.495 Special Topics (approved by adviser)
- 38.498 Internship in the Humanities: Puerto
Rican Study Abroad

Minor in Anthropology - A minor constitutes 18 semester hours in anthropology. This includes three required courses:

- 46.200 Principles of Cultural Anthropology
- 46.210 Prehistoric Anthropology
- 46.220 Human Origins
and 9 additional semester hours from
department electives.

Faculty Profiles

- Thomas F. Aleto, associate professor - B.A., University of Notre Dame; M.A., Ph.D., University of Illinois, Urbana-Champaign
- Susan R. Dauria, associate professor - B.A., State University of New York College at Geneseo; M.A., Ph.D., State University of New York at Albany
- David J. Minderhout, chairperson, professor - B.A., M.A., Michigan State University; Ph.D., Georgetown University
- Faith Warner-Lange, assistant professor - B.A., Bloomsburg University; M.A., Syracuse University
- Dee Anne Wymer, professor - B.A., M.A., Ph.D., The Ohio State University



Allied Health Preparatory Programs

Administered by: Department of Biological and Allied Health Sciences

College: Arts and Sciences

Campus address: 105 Hartline Science Center

Telephone number: (570) 389-4130

Fax number: (570) 389-3028

Program coordinator: James E. Cole

Advisers: Lynne C. Miller, Casey Shonis, Cynthia A. Surmacz, Margaret L. Till

Affiliated web site: <http://vesta.bloomu.edu/~biology/>

About the Programs

The allied health science programs are part of the Department of Biological and Allied Health Sciences at Bloomsburg University. Approximately half of the students in this department are majoring in the health career disciplines of physical therapy, occupational therapy, medical technology, medical imaging, respiratory therapy, pharmacy and cytotechnology. Medical Technology and Medical Imaging, both formal degree programs, are described elsewhere in the catalog. In some instances, Bloomsburg University confers the baccalaureate degree, as with medical technology, respiratory therapy and medical imaging; while in the others, the degree is conferred by another health agency or university away from the Bloomsburg campus. Each of the Allied Health Preparatory Programs at the university combines a strong liberal arts focus with specialization in career-oriented courses.

Bloomsburg's allied health programs are rigorous and high school students considering careers in this area should have a strong background in all the sciences as well as exceptional reading comprehension skills.

Respiratory Therapy - This new baccalaureate program, initiated in the fall of 1998, is designed for

those students who possess an associate degree in respiratory therapy. It is presently pursued only by graduates of the Mansfield University Respiratory Therapy Associate Degree Program. The course requirements, leading to the B.S. degree, are similar to those for medical imagers described elsewhere.

Allied Health Preparatory Programs

Pre-Physical Therapy, Pre-Occupational Therapy, Pre-Cytotechnology and Pre-Pharmacy preparatory programs usually require two to four years to complete. After this period, transfer is made to institutions where completion of the professional (clinical) education occurs and a degree is conferred. Bloomsburg University does not offer specific degrees in these areas.

Students who select one of these preparatory programs follow a course of study that prepares them for entry into a variety of programs at different schools and for a degree in biology if they wish to remain at Bloomsburg University for four years.

Advisement. Presently four faculty members, all in the Department of Biological and Allied Health Sciences, serve as advisers for the preparatory curricula. Each is familiar with the admission requirements for allied health schools across the country.

Placement. Placement to complete the degree in an allied health program away from the campus is not guaranteed. However, the placement success at Bloomsburg has been good and the placement sites vary considerably.

The opportunity to obtain a degree in physical therapy or occupational therapy has been greatly enhanced by two affiliation agreements with major universities in the Philadelphia area: Thomas Jefferson University's College of Health Professions and Medical College of Pennsylvania-Hahnemann University's School of Health Professions.

The affiliation with Thomas Jefferson University facilitates transfer to upper-division degree programs for students who have completed a minimum of two or three years preparatory education at Bloomsburg. These "2+2," "2+3" or "3+3" arrangements provide the advantage of offering a quality, reasonably priced education at a rural university combined with training in an attractive urban setting at a major medical center. Although the "2+2" arrangement is still in place for most allied health programs, the arrangement for physical therapy is "2+3" or "3+3" and culminates in a master's degree from Thomas Jefferson University.

Bloomsburg University is a participant in the PACE (Plan A College Education) program sponsored by Thomas Jefferson University's College of Health Professions. PACE is an early admission program for academically talented high school seniors wishing to matriculate to Thomas Jefferson University after attending an accredited university for at least the first two years.

It is also important to know that many physical therapy programs are entered only after the student receives a baccalaureate degree and the post-baccalaureate program leads to a master's degree. Medical College of Pennsylvania - Hahneman University has such a program and their affiliation with Bloomsburg University virtually ensures matriculation provided undergraduate requirements are met. All of these undergraduate requirements are part of the B.S. degree in Biology at Bloomsburg University.

Colleges of pharmacy offering the bachelor's degree require five years of undergraduate education. Students who are interested in this career take two years of pre-pharmacy work at Bloomsburg and then transfer to a college of pharmacy for three additional years of professional training. Some recent programs have added a fourth year, leading to a Pharm. D. degree.

Core Curriculum. More than 70 students are enrolled in the pre-physical therapy program; listed below are some of the courses found in that curriculum. The curricula for the other preparatory programs are similar to pre-P.T. but do vary; hence, students are encouraged to design a program that fits the requirements of the school to which they wish to transfer. Like pre-P.T., the courses in pre-occupational therapy, pre-cytotechnology and pre-pharmacy are drawn primarily from the physical, biological and behavioral sciences.

Professional Courses

The following courses are required:

20.101 Composition I

20.201 Composition II

45.211 Principles of Sociology (not required for physical therapy)

48.101 General Psychology

50.110 Biology of Animals

50.173 Anatomy and Physiology I

50.174 Anatomy and Physiology II

46.200 Principles of Cultural Anthropology or 45.215 Racial and National Minority Groups (not required for physical therapy)

Select one of the following three courses:

48.210 Life Span Psychology

48.211 Child Psychology

48.335 Abnormal Psychology (required for occupational therapy only)

Select one of the following three courses:

53.112 Trigonometry

53.123 Essentials of Calculus

53.125 Analysis I

48.160 Basic Statistics or 53.141

Introductory Statistics

Chemistry and physics courses are required for the physical therapy program at Thomas Jefferson University. These include:

52.115 Fundamentals of Inorganic Chemistry

52.131 Fundamentals of Organic Chemistry

54.111 Introductory Physics I

54.112 Introductory Physics II

Students must select additional elective courses to complete 55 semester hours in occupational therapy or 65 semester hours in physical therapy.

Allied Health Affiliating Agencies

Abington Memorial Hospital, Abington

Geisinger Medical Center, Danville

The Johns Hopkins Hospital, Baltimore, Md.

Reading Hospital and Medical Center, Reading

Guthrie Medical Center, Robert Packer Hospital,

Sayre

Allegheny University Hospitals, Elkins Park, Md.

Sacred Heart Hospital, Allentown

Scranton Medical Technology Consortium,

Scranton

Divine Providence Hospital, Williamsport

Lancaster General Hospital, Lancaster

Thomas Jefferson University, College of Health Professions, Philadelphia

York Hospital, York

Medical College of Pennsylvania - Hahneman University

Mansfield University of Pennsylvania

ART, ARH, ARS (30, 31, 32)**Art History, Art Studio**

Arts and Sciences

Administered by: Department of Art
 College: Arts and Sciences
 Campus address: 213 Old Science Hall
 Telephone number: (570) 389-4646
 Fax number: (570) 389-4459
 Department chair: Christine M. Sperling
 Degree awarded: Bachelor of Arts

About the Program

The Art Department offers undergraduate major degree programs in art studio and art history. These disciplines are related and complementary. An understanding of art, whether it is an artistic medium such as photography or an artistic period such as the Italian Renaissance, expands and illuminates the academic liberal arts curriculum by bringing to students evidence of our most subtle, elevated and human forms of visual expression.

Students undertake the study of art studio for many reasons, including self-expression, to learn an artistic process and to pursue a vocation in the field. Studio course offerings at Bloomsburg University include ceramics, computer graphics, crafts, drawing, graphics, painting, photography and sculpture. Students, both in studio art and those with other majors but similar creative interests, may develop skills which will be a deep source of personal satisfaction now and throughout life. In the studio courses, the students learn the discipline and technical processes for creating art as well as the aesthetic principles associated with that medium. The latter takes place particularly in the critiques, the in-depth class discussions of the work the class has accomplished. The most advantageous training for an artist, particularly in today's constantly changing technical environment, is a foundational

understanding of art theory and practice and the appreciation of art as a humanistic, academic discipline. All the same, the department is equipped for the future with a state-of-the-art computer graphics lab for student use.

Art history involves understanding these works of creativity through the ages and across diverse cultures. Such an understanding entails not only developing a basic visual vocabulary of great works of art and architecture past and present, but also the capacity to articulate their appearance, to describe and discuss the cultures they evidence and to explore the ideals and practices of their times. The museum and the library are the studio of the art historian.

Students participate in many activities that enrich and expand the classroom experience. In addition to trips to New York City and Washington, D.C., galleries and museums, the Haas Gallery brings several artists to campus each semester to show their work and to meet and talk with students. The presence of art on the Bloomsburg University campus is evidenced by the permanent collection, particularly the monumental outdoor sculptures recently donated by Philip and Muriel Berman and the anagama vases by Shiho Kansaki, the Japanese ceramicist, displayed in the Kehr Union. An active Student Art Association offers activities like movies and trips for its members and organizes the annual, juried Student Art Exhibition.

Besides their facility in their discipline and their experience in teaching, the Art Department faculty bring to the classroom an impressive array of experiences and expertise to share with the students. Karl Beamer collaborates closely with Shiho Kansaki, mentioned above and has built a Japanese anagama kiln on his property outside Bloomsburg.

Students are invited to participate in the firings there. Carol Burns teaches Crafts and Fabric Design and resides part of the year in Santa Fe where she studies the folk-art traditions of the American southwest. Gary Clark is prolifically published as a computer graphics artist and is a frequently requested panelist at computer conferences. Vincent Hron is the painting instructor and exhibits his work nationally. Stewart Nagel teaches graphics and printmaking and offers a course in children's art as well. Andrea Pearson publishes and speaks nationally on issues of gender in Northern Renaissance art and offers courses too in museum studies. Christine Sperling regularly offers a summer study-abroad course in Italy, the site of her art historical research in Renaissance art. Barbara Strohman is the director of the Haas Gallery and brings to the classroom her knowledge of museums and galleries here and in Europe. Vera Viditz-Ward is deeply involved in documenting with her photography the lives of people in West Africa, where she lived for many years. Charles T. Walters' specialty is later 19th American art and culture.

The art studio and art history undergraduate degrees both provide the foundation for future activity in the discipline, whether it be employment for which a bachelor's degree is suitable or further advanced study at the graduate level at another institution. For students in minor programs in art history and art studio, for students in other degree programs and for non-degree participants, the Art Department offers experiences, training and insight into the fascinating world of art.

Required Courses

For the B.A. in art studio or art history, students must fulfill the requirements for the major, the general elective courses and whatever free elective credits remain to bring the number of semester hours to 128. Transfer students must take at least half the credits for the degree program at Bloomsburg University to graduate with a major in art studio or art history. Of the 13 courses needed, at least seven must be taken at Bloomsburg. All art courses at Bloomsburg are three semester hours unless indicated otherwise.

Requirements for Art Studio - A total of 39 semester hours is required for a major in art studio. Required courses include:

Core

- 32.111 Drawing I
- 32.212 Drawing II

32.151 Three-Dimensional Design

32.152 Two-Dimensional Design

32.231 Painting I

32.241 Sculpture I

Choose two courses from Art History (31)

Specialization - Three levels of one of the following: ceramics, fabric design, graphics, painting, photography, sculpture, weaving or computer graphics

Art Electives - Complete the 39 credits for major with art electives in Art History or Art Studio.

Requirements for Art History - A total of 39 semester hours is required for a major in art history. The degree program in art history provides an overview of the history of art together with minimum competency in a foreign language pertinent to the discipline, as well as direct experience of the art-making process through studio courses. Art history majors are expected to work closely with their adviser to identify courses that are most relevant to their interests and postgraduate goals. Required courses include:

Core

Choose eight courses from the following 12 courses:

- 31.215 American Art History
- 31.225 History of Architecture
- 31.235 Ancient and Medieval Art
- 31.236 Art from the Renaissance Through Impressionism
- 31.324 History of Photography
- 31.345 Islamic Art
- 31.346 Art History of the Far East
- 31.355 History of Modern Art
- 31.375 Independent Study in Art History
- 31.365 Italian Renaissance Art
- 31.366 Northern Renaissance Art
- 31.373 Romanesque and Gothic Art
- 31.450 Perspectives on Museums
- 31.451 Museum Exhibition
- 30.385 Philosophy/Psychology of Art
- 32.480 Internship In Art (depending on the nature of the internship experience, 3-6 credits)

Or any other Art History course

Art Studio: Six semester hours in art studio courses in areas such as drawing, painting, sculpture, 2D or 3D design, ceramics, fabric design, graphics, photography, weaving and computer graphics.

Art electives: Three semester hours in an art elective class (art history or art studio)

Language: Six semester hours in a foreign language, namely French, German, Italian or a language approved by the department chairperson. Art history majors intending to continue studies at the graduate level should take two levels of the same language to acquire greater proficiency.

Minor in Art Studio

9 semester hours from three levels of a studio specialization: ceramics, drawing, fabric design, graphics, painting, photography, sculpture or weaving.

6 semester hours art studio choice (Code 32)

30.101 Introduction to Art

Minor in Art History

15 semester hours in art history courses (Code 31)

30.101 Introduction to Art

Faculty Profiles

Karl A. Beamer, associate professor - B.S., Kutztown State College; M.F.A., The Pennsylvania State University

Carol Burns, associate professor - B.S., The Pennsylvania State University; M.A., University of Northern Colorado; M.F.A., Cranbrook Academy of Art

Gary F. Clark, professor - B.F.A., Maryland Institute College of Art; M.A., West Virginia University

Vincent Hron, assistant professor - B.F.A., Drake University; M.F.A., University of Michigan

Stewart L. Nagel, professor - B.F.A., Cooper Union; M.F.A., Pratt Institute

Andrea G. Pearson, assistant professor - B.A., Augustana College; M.A., University of Iowa; Ph.D., University of California, Santa Barbara

Christine M. Sperling, associate professor, chairperson - B.A., M.A., University of Oregon; Ph.D., Brown University

Barbara J. Strohman, professor - B.S., University of Maryland; M.F.A., Maryland Institute College of Art

Vera Viditz-Ward, associate professor - B.F.A., Hartford Art School/University Of Hartford; M.F.A., Indiana University

Charles Thomas Walters, associate professor - B.M., Depauw University; M.F.A., University of Wisconsin; Ph.D., University of Michigan

BIO (50)**Biology**

Administered by: Department of Biological and Allied Health Sciences

College: Arts and Sciences

Campus address: 125 Hartline Science Center

Telephone number: (570) 389-4400

Fax number: (570) 389-3028

Department chair: Louis Mingrone

Degrees Awarded: Bachelor of Science, Bachelor of Arts

Affiliated website: <http://vesta.bloomu.edu/~biology/>

About the Programs

The study of living systems prepares students for an exciting variety of professions. Bloomsburg University graduates who major in the biological and allied health sciences find employment in a wide spectrum of careers or continue with their studies in professional school or graduate school. Many enter the work force as allied health professionals, as laboratory or field technicians or as teachers. They work in private industry, research centers, health care facilities and government agencies.

The Department of Biological and Allied Health Sciences offers a small school's personal attention while providing a large school's opportunities. Since upper-level class size averages between 12 and 15 students, there is ample opportunity for individualized interaction between faculty and students and for hands-on experience. Opportunities for independent studies and internships are also available.

Each of the 18 full-time and one part-time faculty holds a Ph.D. The areas of faculty specialization include animal behavior, animal physiology, botany, cell biology, ecology, environmental microbiology, exercise physiology, fungal genetics, herpetology, human genetics, immunology, marine biology, medical microbiology, molecular biology, mycol-

ogy, nutrition, parasitology, plant pathology, plant physiology and plant systematics. The collective experiences and training of the faculty afford each student the opportunity to develop under a highly competent tutelage.

A variety of equipment and facilities supports the teaching and research activities of the department. These include an animal room, an aquatics room, cell biology laboratory, computer resource center, darkroom, fungal culture collection, genetics laboratory, greenhouse, growth chambers, herbarium, microbiology laboratories, parasitology laboratories and radiation laboratory. The university is also a member of the Marine Science Consortium, maintaining a research laboratory at the Marine Science Center at Wallops Island, Virginia.

Bachelor of Science, Bachelor of Arts - Students may elect to earn either a bachelor of arts (B.A.) or a bachelor of science (B.S.) in biology. Both programs offer options in microbiology and marine biology. The B.S. program provides a rigorous background in biology (38 credit hours), chemistry (20 credit hours), physics (8 credit hours) and mathematics (6 credit hours). The program meets the needs of students who plan to enter graduate or professional school in the natural sciences and of those seeking employment in the private sector and government agencies.

The B.A. program allows more freedom in choosing courses, especially in a minor or second academic major. The program requires courses in biology (38 credit hours), chemistry (16 credit hours) and mathematics (6 credit hours). B.A. graduates have entered fields such as outdoor education and biological illustration.

Students pursuing either a B.S. or a B.A. may elect an option in microbiology or marine biology.

The core requirements are the same as for the general B.S. and B.A. programs, but appropriate additional course work is also required. The microbiology option is also open to medical technology majors. The marine biology option requires that at least four summer courses be taken at the Marine Science Center in Virginia.

B.S. in Education - Students considering a career as a biology teacher on the secondary school level can earn teaching credentials at Bloomsburg. Through the College of Professional Studies' School of Education, the university offers a bachelor of science in education (B.S.Ed.) with a concentration biology. Biology is also an optional area of specialization for students majoring in elementary education.

Research and Internship - In addition to course work, students have opportunities to learn biology in a hands-on setting outside of the classroom. This can be done through an independent study project or internship.

The faculty maintains active research programs in which students are involved at both the undergraduate and graduate levels. Students pursue biological research under the direction of a faculty member, earning biology elective credit (usually 3 or 6 credit hours).

Internship experiences allow students to earn university credits while working as a biologist. Experiences have included assignment with the National Park Service; the Smithsonian Institution; the Pennsylvania Department of Agriculture and the Fish and Wildlife Commission; Children's Museum; Macneil Pharmaceutical Company; Elmwood Park Zoo; Geisinger Medical Center; Pennsylvania Power and Light; and many other private and government agencies.

Pre-Professional Study

Students who intend to enter a professional field such as osteopathic, allopathic or veterinary medicine; optometry; podiatry; or dentistry can choose a major such as biology, chemistry or physics. As a rule, professional schools do not specify an undergraduate major, but do specify minimum essential requirements, including courses in general chemistry organic chemistry, mathematics, biology and physics.

High standards of undergraduate scholarship are demanded for consideration. You should contact either co-chair of the Pre-Professional Advisory Committee for advisement if you are considering

this career choice. The placement of Bloomsburg University graduates in professional schools, especially those in medicine and dentistry, has been noteworthy. More than 85 percent of the students recommended by the Pre-Professional Advisory Committee have gained acceptance to professional schools. Some former students lead their classes in academic standing at these schools. The classroom and laboratory preparation the students received and the close faculty supervision offered to them during their undergraduate years at Bloomsburg University are believed to be major factors for success.

A number of required courses are taught in the Department of Biological and Allied Health Sciences. Students interested in pursuing a medical career must follow a degree program that includes science courses required for entrance into medical school. A strong program of liberal arts courses is highly recommended by American medical schools.

The Pre-Professional Advisory Committee bases recommendations on the student's academic record, resume, performance on required standardized tests and faculty evaluations. By the time a student in the program attains junior standing, chance of acceptance to a professional school is excellent. The Pre-Professional Committee is composed of five professors from the Department of Biological and Allied Health Sciences and the Department of Chemistry. In addition to providing advisement, the committee is responsible for evaluating credentials of students who seek the committee's recommendation. Three levels of recommendation are offered by the committee: strongly recommended, recommended and recommended with reservations. The latter endorsement indicates that a student falls short of one or more of the measured criteria. The majority of students recommended by the Pre-Professional Committee are either strongly recommended or recommended. Students not seeking the committee's evaluation can receive a realistic assessment of their credentials and letters of recommendation from faculty. However, this route for seeking acceptance is not the most desirable.

Each student is assigned a major advisor, who is a faculty member with special insight into the professional field selected by the student and the requirements necessary for acceptance by professional schools. In addition, any member of the Pre-Professional Advisory Committee can offer guidance to the students.

Many students opt to attend professional schools in Pennsylvania, for example: Penn State Hershey, University of Pennsylvania, Thomas Jefferson University, University of Pittsburgh, Temple University, Allegheny University, Philadelphia College of Osteopathic Medicine, Lake Erie College of Osteopathic Medicine and the Pennsylvania College of Optometry. However, many Bloomsburg Alumni have attended other professional schools such as Georgetown University School of Medicine, Kansas City College, Fairleigh Dickinson, West Virginia University and the University of LTIM in Germany.

Pre-professional students enrolled in the Department of Biological and Allied Health Sciences pursue the Bachelor of Science degree in biology. Required courses are taken in biology, chemistry, physics and mathematics. Many other useful biology elective courses are also available. Highly recommended biology electives for premedical preparation include the following courses: Comparative Vertebrate Anatomy, Embryology, Vertebrate Histology, Immunology, Medical Parasitology and Writing in Biology. Pre-professional students are strongly encouraged to become computer-literate. Fluency in a foreign language can also be useful.

A carefully-chosen internship or independent research project can be of value in preparation for professional school. Students must also perform volunteer or observational activities at a hospital or an office of an appropriate health professional.

The general education requirements can be fulfilled by taking courses in the humanities and social sciences. Humanities courses are offered in the departments of Art, English, Language and Cultures, Music, Philosophy, Speech and History. Social science courses are offered in the departments of Anthropology, Economics, Geography, Political Science, Psychology and Sociology. The curriculum at Bloomsburg University challenges one to learn more about the world so that he or she can help change it for the better by responsible citizenship and generous, professional service.

Required Courses

Among the 54 semester hours of general education courses required for graduation, biology majors may substitute 50.290 Writing in Biology for the second English writing course (20.200 or 20.201). A minimum of 72 semester hours of courses are required of Biology majors. This allows for 12 hours

of elective courses to meet the university requirement of 128 hours for a baccalaureate degree.

Required Courses for Bachelor of Science in Biology - In this degree program, students may choose an option in microbiology or marine biology.

- 50.110 Biology of Animals
- 50.120 Biology of Plants
- 50.242 Biology of Microorganisms
- 50.271 Cell Biology
- 50.332 Genetics
- 50.351 General Ecology
- 50.380 Biology Seminar
- 52.115 Fundamentals of Inorganic Chemistry
- 52.131 Fundamentals of Organic Chemistry
- 52.216 Chemical Principles and Measurements
- 52.232 Intermediate Organic Chemistry
- 52.341 Biochemistry

Choose one of the following four courses:

- 50.371 Principles of Mammalian Physiology
- 50.372 Plant Physiology
- 50.475 Cell Physiology
- 50.473 Systemic Physiology

And additional biology courses for a minimum of 38 semester hours.

Choose one of the following two combinations:

- 54.111 Introductory Physics I and
- 54.112 Introductory Physics II
- OR
- 54.211 General Physics I and
- 54.212 General Physics II

Choose one from the following three sets of options:

- 53.141 Introduction to Statistics or
- 48.160 Basic Statistics and
- 53.123 Essentials of Calculus
- OR
- 53.141 Introduction to Statistics or
- 48.160 Basic Statistics and
- 53.125 Analysis I
- OR
- 53.125 Analysis I and
- 53.125 Analysis II

Languages and Cultures: at least one of any of the following courses: 10.102 French II, 10.203 French III, 10.204 French IV, 11.102 German II, 11.203 German III, 11.204 German IV, 12.102 Spanish II, 12.203 Spanish III, 12.204 Spanish IV, 13.102 Russian II, 13.203 Russian III, 13.204 Russian IV; 14.102 Italian II or 16.106 Chinese II.

Required Courses for Bachelor of Arts in Biology - In this degree program, students may choose an option in microbiology or marine biology.

- 50.110 Biology of Animals
- 50.120 Biology of Plants
- 50.242 Biology of Microorganisms
- 50.271 Cell Biology
- 50.332 Genetics
- 50.351 General Ecology
- 50.380 Biology Seminar

Choose one of the following four courses:

- 50.371 Principles of Mammalian Physiology
- 50.372 Plant Physiology
- 50.475 Cell Physiology
- 50.473 Systemic Physiology

And additional biology courses for a minimum of 38 semester hours.

- 52.115 Fundamentals of Inorganic Chemistry
- 52.131 Fundamentals of Organic Chemistry
- 52.216 Chemical Principles and Measurements
- 52.341 Biochemistry

Mathematics (6 hours)

Choose one from the following three sets of options:

- 56.110 Introduction to Computer Science and 53.141 Introduction to Statistics (or 48.160 Basic Statistics)

OR

- 56.110 Introduction to Computer Science and 53.125 Analysis I (or 53.123 Essentials of Calculus)

OR

- 53.141 Introduction to Statistics (or 48.160 Basic Statistics) and 53.125 Analysis I (or 53.123 Essentials of Calculus)

Languages and Cultures: at least one semester of any of the following courses: 10.102 French II, 10.203 French III, 10.204 French IV, 11.102 German II, 11.203 German III, 11.204 German IV, 12.102 Spanish II, 12.203 Spanish III, 12.204 Spanish IV, 13.102 Russian II, 13.203 Russian III, 13.204 Russian IV; 14.102 Italian II or 16.106 Chinese II.

Microbiology Option - The option provides a biology major the opportunity to specialize in microbiology while obtaining a general background in biology. The option is also open to medical technology majors; see the section on Medical Technology. The requirements for this option are the same for the Bachelor of Science program as they are for the Bachelor of Arts program.

- 50.110 Biology of Animals
- 50.120 Biology of Plants

- 50.242 Biology of Microorganisms
- 50.271 Cell Biology
- 50.332 Genetics
- 50.351 General Ecology
- 50.380 Biology Seminar
- 50.342 Medical Bacteriology
- 50.343 Immunology

Choose one of the following four courses:

- 50.371 Principles of Mammalian Physiology
- 50.372 Plant Physiology
- 50.475 Cell Physiology
- 50.473 Systemic Physiology

Electives (9 semester hours) Choose from:

- 50.350 Plant Pathology
- 50.432 Microbial Genetics
- 50.442 Virology of Mammals
- 50.450 Mycology
- 50.455 Environmental Microbiology
- 50.470 Medical Parasitology

Marine Biology Option - This option provides the biology major with the opportunity to specialize in marine biology while obtaining a foundation in the fundamental principles of biological science. Program specific courses in marine biology are offered at the Marine Science Center, Wallops Island, Va., a field station supported by the department.

Biology:

- 50.110 Biology of Animals
- 50.120 Biology of Plants
- 50.211 Invertebrate Zoology or 55.221 Marine Invertebrates
- 50.242 Biology of Microorganisms
- 50.271 Cell Biology
- 50.332 Genetics
- 50.351 Ecology or 55.260 Marine Ecology
- 50.380 Biology Seminar

Choose one of the following four courses:

- 50.371 Principles of Mammalian Physiology
- 50.372 Plant Physiology
- 50.475 Cell Physiology
- 50.473 Systemic Physiology

Marine Biology:

- 55.241 Marine Biology

Electives (12 semester hours):

- 55.250 Wetland Ecology
- 55.298 Physiology of Marine Invertebrates
- 55.300 Behavior of Marine Organisms
- 55.320 Marine Microbiology
- 55.330 Tropical Invertebrates
- 55.342 Marine Botany
- 55.343 Marine Ichthyology
- 55.345 Marine Ornithology

- 55.394 Comparative Physiology of Marine Organisms
- 55.431 Ecology of Marine Plankton
- 55.432 Marine Evolutionary Ecology
- 55.441 Biology of Molluscs
- 55.464 Biological Oceanography
- 55.470 Research Diver Methods
- 55.490 Marine Aquaculture
- 55.491 Coral Reef Ecology
- 55.492 Marine Mammals
- 55.493 Behavioral Ecology

Minor in Biology

The minor in biology consists of 22 semester hours. Required courses are:

- 50.110 Biology of Animals
- 50.120 Biology of Plants
- 50.242 Biology of Microorganisms
- 50.271 Cell Biology

and at least two courses (6 semester hours) at the 300-level or above that are chosen from departmental offerings acceptable to the major. These may not include: 50.380, 50.390/50.391, 50.490, 50.493 and 50.494.

Internship/Independent Study — The department provides opportunities for students to engage in internships and independent study. Only 6 semester hours can be applied as biology electives from the following courses:

- 50.390 Independent Study in Biology I
- 50.391 Independent Study in Biology II
- 50.490 Internship in Biology
- 50.493 Honors Independent Study I - Biological Research
- 50.494 Honors Independent Study II - Biological Research

Faculty Profiles

Joseph P. Ardizzi, associate professor - B.S., St. Joseph's University; Ph.D., Cornell University
 George P. Chamuris, professor - A.A.S., Dutchess Community College; B.S., State University of New York at Albany; M.S., James Madison University; Ph.D., State University of New York, College of Environmental Science and Forestry at Syracuse

James E. Cole, professor - B.A., M.A., Western Michigan University; Ph.D., Illinois State University

George T. Davis, assistant professor - B.A., M.S., Southern Illinois University; Ph.D., University of Illinois

Judith P. Downing, professor - B.S., Bowling Green State University; M.A., Ph.D., State University of New York at Buffalo

Phillip A. Farber, professor - B.S., King's College; M.S., Boston College; Ph.D., Catholic University of America

Frederick C. Hill, professor - B.S., M.S., Illinois State University; Ph.D., University of Louisville

Thomas S. Klinger, professor - A.A., Bradford College; B.A., Macalester College; M.A., Ph.D., University of South Florida

Judith Kipe-Nolt, associate professor - B.A., Messiah College; M.S., Ph.D., The Pennsylvania State University

Jeanne W. Lawless, assistant professor - B.S., Ph.D., Cornell University

Mark S. Melnychuk, professor - B.S., Moravian College; Ph.D., Kent State University

Lynne C. Miller, professor - B.S., College of Pharmacy, University of Rhode Island; M.S., University of Texas; Ph.D., New Mexico State University

Louis V. Mingrone, chairperson, professor - B.S., Slippery Rock State College; M.S., Ohio University; Ph.D., Washington State University

James E. Parsons, professor - B.S., M.S., Ph.D., The Ohio State University

Casey A. Shonis, associate professor - B.A., Slippery Rock University; M.S., Ph.D., University of Illinois at Champaign-Urbana

Cynthia A. Surmacz, professor - B.S., The Pennsylvania State University; Ph.D., Milton S. Hershey Medical Center, The Pennsylvania State University

Margaret L. Till, professor - B.S., M.S., Ph.D., Auburn University

Kevin Williams, assistant professor - B.S., Northwestern Oklahoma State University; M.S., Fort Hays State University; Ph.D., Syracuse University

CHM (52)**Chemistry, Clinical Chemistry**

Administered by: Department of Chemistry
College: College of Arts and Sciences
Campus address: 230 Hartline Science Center
Telephone number: (570) 389-4107
Fax number: (570) 389-3028
Department chair, e-mail: Lawrence Mack,
lmack@bloomu.edu

Degrees awarded: Bachelor of Science, Bachelor of Arts

About the Programs

A knowledge of chemistry is central to research in all areas of scientific knowledge. Chemists are considered to be among the most versatile of all scientists and, therefore, are very employable. The program at Bloomsburg is recognized as offering high-quality pre-professional training for careers in research, industry, higher education, medicine and allied health professions. Because not all chemists are employed in a laboratory environment, chemistry majors may consider careers as high-school teachers, consultants, patent lawyers, librarians or editors. Your local physician, dentist, an industrial marketing manager or a computer expert may have started with a bachelor's degree in chemistry.

The strength of the chemistry programs at Bloomsburg University is in the quality of its faculty, in the flexible structure of the curriculum and in the modern facilities. The Department of Chemistry is recognized by the Committee on Professional Training of the American Chemical Society (ACS) as one that meets its nationally recognized standards for undergraduate education in chemistry. The chemistry department is housed in a newly renovated facility, with an excellent collection of computers and chemical instrumentation dedicated to undergraduate education. At Bloomsburg the student will have a Ph.D. chemist in the labora-

tory as the instructor, not a graduate student teaching assistant. We believe that this will result in a better educated student.

The Bachelor of Science program in chemistry is designed to give students a strong background in the sciences with several options. The degree has three tracks all with a common 5-semester core requirement. The first is the standard Bachelor of Science Degree (B.S.). The second track is the Bachelor of Science Degree with a biochemistry option (B.S.-biochemistry) which has an additional molecular biology emphasis. The third track is the American Chemical Society (ACS) - approved degree. (B.S.-ACS)

The Bachelor of Science degree offers a strong professional preparation in chemistry. It is recommended for those students who wish to follow a pre-law curriculum or to enter business upon graduation. The standard B.S. degree allows ample time for taking additional courses in other disciplines and taking a minor in related fields of interest. The B.S. chemistry-business minor program allows students to enter the Masters of Business Administration program in the College of Business at the end of the fourth year. Such a choice of study allows a student to have the background to be eligible for admission in masters of business administration (MBA) programs after graduation.

Students interested in a pre-medical or pre-dental curriculum are encouraged to take the B.S.- biochemistry option. This curriculum features a requirement of a full year of biochemistry/molecular biology and four courses in biology.

Most students in either the B.S. or B.S.-biochemistry tracks chose to take additional courses to meet the standards for certification for undergraduate professional training by the American Chemical

Society, the largest scientific society in the world. This is our B. S. - ACS degree. Students who intend to pursue advanced degrees in chemistry, biochemistry or related disciplines or who anticipate a career in the chemical industry and research are encouraged to take the B.S.-ACS program. Students in this program will culminate their studies by conducting an independent research project in collaboration with a faculty member. These individual research projects may be part of a larger research program by the faculty member and may lead to a presentation or publication with the student as a co-author. This experience is extremely valuable if the student decides to go to graduate school or industrial research. Students completing the B.S.-ACS degree program are certified by the American Chemical Society and become eligible for membership in the society immediately upon graduation.

Students who wish to qualify for Honors in Chemistry must take the B.S.-ACS course of study and three semesters of undergraduate research.

The Bachelor of Science program in Clinical Chemistry is a select program in cooperation with the Penn State/ Geisinger Medical Center in nearby Danville, Pa. It is designed to prepare students for careers in a hospital setting or a pharmaceutical clinical laboratory. The program features a senior-year, 12-month clinical research experience in a laboratory at the Penn State/ Geisinger Medical Center.

Students who wish to pursue careers as chemistry teachers at the secondary education level should select the Bachelor of Science in Education program. (B.S. - Ed.) This curriculum is offered in cooperation with the College of Professional Studies. (See Secondary Education.)

The Bachelor of Arts (B.A.) curriculum is designed for students in such programs as pre-engineering or pre-pharmacy. These are typically a "3+2" or "3+3" schedule in which students spend three years at Bloomsburg and the remaining semesters at another campus. Students interested in chemical engineering can take part in the Cooperative Program in Engineering with The Pennsylvania State University. With the addition of three courses beyond the requirements of the B.A., a student may earn a B. A. in chemistry and a B. S. in chemical engineering after completing the program.

Many students transfer to Bloomsburg University after one or more years of college elsewhere to take advantage of the quality programs on campus.

Early contact with a faculty advisor will smooth the transition into the chemistry program as well as campus life in general. All interested students who have been accepted into the university for transfer should contact the chairperson in the Department of Chemistry for further information. Students transferring into the chemistry program for the junior year should have completed four semesters of chemistry: two semesters of general chemistry, especially those courses stressing inorganic chemistry and chemical principles and two semesters of organic chemistry. All of these courses should have a laboratory component. In addition, a year of general physics and several calculus courses through multiple variables is highly recommended.

Facilities and Equipment

A major renovation of Hartline Science Center in 1991 has substantially increased the amount of laboratory space and quality of facilities for the chemistry department. The department has a number of computers in a network available in Hartline Science Center for student use, as well as computers for the chemical instrumentation.

The Chemistry Department has available for student use most of the major scientific equipment normally present in industrial and graduate research environments, including instrumentation in such areas as atomic spectroscopy, electrochemistry, FT-IR spectroscopy, UV-visible-NIR spectroscopy, gas and liquid chromatography, fluorescence spectrophotometry, mass spectrometry, ultra-centrifugation, light scattering, vacuum techniques, protein and nucleic acid electrophoresis, laser kinetic apparatus, DNA thermocycler and nuclear magnetic resonance.

Required Courses

Requirements for the Major (B.S.) - In addition to meeting general education requirements totaling 51-54 semester hours, the following courses are required:

52.115 Fundamentals of Inorganic
Chemistry

52.131 Fundamentals of Organic Chemistry

52.216 Chemical Principles and
Measurements

52.232 Intermediate Organic Chemistry

52.233 Organic Spectroscopy

52.321 Analytical Chemistry

52.322 Analytical Chemistry II

52.361 Physical Chemistry I

- 52.362 Physical Chemistry II
- 52.452 Advanced Inorganic Chemistry
- 53.125 Analysis I
- 53.126 Analysis II
- 53.225 Analysis III
- 54.211 General Physics I
- 54.212 General Physics II

Choose one of the following three courses

- 56.110 Introduction to Computer Science
- 56.121 Computer Science I
- 56.116 Algorithmic Processes for Computers

Students who want American Chemical Society certification (B.S.-ACS) upon graduation must complete the following additional requirements beyond requirements for the Bachelor of Science:

- 52.281 Introduction to Scientific Literature
- 52.492 Independent Study II: Introduction to Research
- 52.493 Independent Study III: Chemical Research

A restricted elective selected from any 300 and 400 =0level course in chemistry (except Independent Study) or any approved 300 or 400-level course in mathematics or physics.

Requirements for the Major - for a B.S. with a biochemistry track: in addition to the general education requirements of the university, the following courses are required:

- 52.115 Fundamentals of Inorganic Chemistry
- 52.131 Fundamentals of Organic Chemistry
- 52.216 Chemical Principles and Measurements
- 52.232 Intermediate Organic Chemistry
- 52.233 Organic Spectroscopy
- 52.281 Introduction to Scientific Literature
- 52.321 Analytical Chemistry
- 52.341 Biochemistry I
- 52.442 Biochemistry II
- 52.361 Physical Chemistry I
- 54.211 General Physics I
- 54.212 General Physics II
- 53.125 Analysis I
- 53.126 Analysis II
- 53.225 Analysis III

Choose one of the following three courses:

- 56.110 Introduction to Computer Science
- 56.121 Computer Science I
- 56.116 Algorithmic Processes for Computers

Chemistry electives - choose two of the following five courses:

- 52.322 Analytical Chemistry II
- 52.452 Advanced Inorganic Chemistry
- 52.362 Physical Chemistry II
- 52.492 Introduction to Research
- 52.493 Chemical Research

Required biology courses:

- 50.242 Biology of Microorganisms
- 50.271 Cell Biology
- 50.332 Genetics

Choose one of the following seven courses:

- 50.343 Immunology
- 50.371 Principles of Mammalian Physiology
- 50.372 Plant Physiology
- 50.411 Radiation Biology
- 50.432 Microbial Genetics
- 50.441 Cytogenetics
- 50.472 Cell Physiology

Students who want American Chemical Society certification upon graduation must complete the following courses as part of the B.S.-Biochemistry Curriculum:

- 52.322 Analytical Chemistry II
- 52.362 Physical Chemistry II
- 52.452 Advanced Inorganic Chemistry

Required Courses for B.S. in Clinical Chemistry

- In addition to 58 semester hours of general education requirements, the following are required:

- 52.115 Fundamentals of Inorganic Chemistry
- 52.131 Fundamentals of Organic Chemistry
- 52.216 Chemical Principles and Measurements
- 52.232 Intermediate Organic Chemistry
- 52.233 Organic Spectroscopy
- 52.321 Analytical Chemistry
- 52.341 Biochemistry
- 52.361 Physical Chemistry I
- 50.271 Cell Biology
- 50.343 Immunology
- 53.125 Analysis I
- 53.126 Analysis II
- 53.225 Analysis III
- 54.211 General Physics I
- 54.212 General Physics II
- 56.110 Introduction to Computer Science

Requirements for the Major for a Bachelor of Arts in Chemistry - In addition to general education requirements of the university, the following courses are required:

- 52.115 Fundamentals of Inorganic Chemistry
- 52.131 Fundamentals of Organic Chemistry
- 52.216 Chemical Principles and Measurements
- 52.232 Intermediate Organic Chemistry
- 52.281 Introduction to Scientific Literature
- 52.321 Analytical Chemistry I
- 52.322 Analytical Chemistry II
- 52.361 Physical Chemistry I
- 52.362 Physical Chemistry II
- 54.211 General Physics I
- 54.212 General Physics II
- 53.125 Analysis I
- 53.126 Analysis II
- 53.225 Analysis III
- Plus one of the following computer courses:
- 56.110 Introduction to Computer Science
- 56.121 Computer Science I
- 56.116 Algorithmic Processes

Requirements for the Minor - The minor in chemistry consists of 19 to 21 semester hours.

- 52.115 Fundamentals of Inorganic Chemistry
- 52.131 Fundamentals of Organic Chemistry
- 52.216 Chemical Principles and Measurements
- One of the following combinations of restricted electives:
- 52.232 Intermediate Organic Chemistry, 52.233 Organic Spectroscopy and 52.321 Analytical Chemistry
- or
- 52.321 Analytical Chemistry and 52.232 Intermediate Organic Chemistry
- or
- 52.361 Physical Chemistry I or 52.232 Intermediate Organic Chemistry

Faculty Profiles

Wayne P. Anderson, professor - A.A.S., Jamestown Community College; B.A., Harpur College; M.S., Ph.D., University of Illinois

Michael A.G. Berg, assistant professor - B.S., Washington and Lee University; Ph.D., Virginia Polytechnic Institute and State University

Sharon Fredericks, assistant professor - B.A. University of Maryland-Baltimore County, Ph.D., University of Pittsburgh

Christopher P. Hallen, associate professor - B.A., Assumption College; Ph.D., University of New Hampshire

Cindy L. Kepler - assistant professor - B.S. Shippensburg University of Pennsylvania; Ph.D., University of Southern California

Lawrence L. Mack, chairperson, professor - A.B., Middlebury College; Ph.D., Northwestern University

Roy D. Pointer, professor - B.S., University of Kansas; M.S., Ph.D., University of Michigan

Michael E. Pugh, associate professor - B.S., University of California, Davis; Ph.D., Arizona State University

Emeric Schultz, professor - B.A., University of California; Ph.D., University of Illinois

Mark G. Stocksdales - assistant professor, B.S., Taylor University; M.S., Ball State University; Ph.D., University of Notre Dame

Bruce E. Wilcox, associate professor - B.S., M.S., State University of New York at Oswego; Ph.D., University of Cincinnati

Adjunct Faculty for Clinical Chemistry, PennState/Geisinger Medical Center, Div. of Laboratory, Danville, Pa.: Conrad Schuerch, M.D., Chairperson of Laboratory Medicine; Paul Bourbeau, Ph.D., Director of Microbiology; Jay Burton Jones, Ph.D., Director of Chemistry/Toxicology; Mildred Louise Kaiser Fleetwood, Ph.D., Director of Immunology; George Wadich, M.D., Associate Pathologist; Stephen Meschter, M.D., Associate Pathologist; Alvin Swartzentruber, B.S., Educational Coordinator, School of Medical Technology, Skip Sharets, M.T., Supervisor of Clinical Chemistry Laboratory

COM (25)**Communication Studies**

Arts and Sciences

Administered by: Department of Communication Studies and
Theatre Arts

College: Arts and Sciences

Campus address: 1103 McCormick Center for Human
Services

Telephone number: (570) 389-4184

Fax number: (570) 389-3516

Department chair: Howard N. Schreier

Degree awarded: Bachelor of Arts

Affiliated website: <http://vesta.bloomu.edu/~csta>

About the Program

Students who major in communication studies learn how communication functions in social and professional contexts. Students may focus their study in one of three functional areas:

Interpersonal relationship management: This area focuses on the importance of communication in human relationships. Students develop competencies that allow them to explore human interactions, assess barriers to communication in relationships and acquire communication skills necessary for successful personal and professional development. Study in this area prepares students for careers in social and human services such as counseling, public administration, health service management and the ministry.

Leadership and social influence: This area focuses on the importance of communication in a democratic society. Students develop competencies that allow them to understand the public deliberative process, to assess and create messages and to enhance their leadership skills. Study in this area prepares students for careers in government, law, public information, speechwriting, lobbying, campaign direction or elected office.

Applied communication: This area focuses on the importance of communication in business and professional settings. Students develop competencies that allow them to understand communication in professional organizations, develop professional communication skills and to train others to communicate effectively in professional settings. Study in this area prepares students for careers in personnel management, sales, executive management, industrial and labor relations, employee training or as a development officer.

The communication studies division of the department supports general education for the entire university with courses in public speaking, interpersonal communication and intercultural communication.

Forensic Society - Students in the forensics program debate current topics, develop original speeches and present readings at intercollegiate competitions. Team members compete locally, regionally and nationally and they help to organize tournaments sponsored by Bloomsburg University.

Participants may earn up to one credit per year by taking 25.108 Forensics Practicum. Students from all majors are welcome to join the forensics team to improve their self-confidence, competence in research, knowledge of current events, appreciation of literature and public presentation skills.

Among careers pursued by Communication Studies majors after graduation are speech writing, employee training, sales management, public information, development, technical writing, campaign direction, lobbying and negotiations.

Requirements for the Major

Among 54 semester hours of general education requirements of the university, Communication Studies majors must take:

25.103 Public Speaking

Core requirements: A total of 9 semester hours are required from the following:

25.104 Interpersonal Communication

25.207 Investigating Communication

25.220 Intercultural Communication
(diversity)

Areas of Concentration: All majors are required to take five of six courses in their chosen area of concentration, which must include the appropriate required course for that area, plus a minimum of one course from each of the other two areas of concentration, for a total of 21 semester hours. Students may take additional courses as free electives.

Interpersonal Relationship Management

25.215 Communication Theory (required)

25.309 Gender Issues in Communication
(diversity)

25.313 Communication and Conflict

25.419 Communication in the Family

25.425 Communication in Relationships

25.426 Leadership and Team Building

Leadership and Social Influence

25.205 Understanding Social Influence
(required)

25.315 Persuasion

25.321 Argumentation

25.406 Evaluating Communication

25.413 Community Leadership

25.417 Evaluating Media Influence

Applied Communication

25.210 Organizational Communication
(required)

25.306 Computer Applications for
Professional Communicators

25.307 Communication for Business
Professionals

25.407 Interviewing

25.423 Communication Training in
Organizations

25.424 Corporate Communication

Capstone Experience: The capstone experience is required of all students in the major regardless of the area of concentration. After completing 80 or more semester hours, students with a minimum 2.5

cumulative grade point average are eligible to register for an internship that will serve as their capstone experience. Students may register for 3 to 12 internship semester hours. Additional internship credit beyond the required 3 hours cannot be substituted for other coursework, but would be considered as electives. Students academically ineligible for Internship in Communication should consult their academic advisor to arrange a suitable alternative experience, such as additional specialized coursework.

25.497 Internship in Communication

Elective Courses:

25.108 Forensics Practicum

25.206 Oral Interpretation

25.218 Discussion

25.470 Independent Study

25.492, 25.493, 25.495 Advanced Studies in
Communication

25.494 Advanced Studies in
Communication (diversity)

Minor in Communication Studies

Students who hold a minimum 3.0 cumulative grade point average on a minimum of 15 semester hours are eligible for admission to the minor. Students must maintain the minimum 3.0 cumulative grade point average to continue study for a Communication Studies minor. Students who do not maintain the required grade point average will be put on probation for one semester during which they must regain the required grade point average.

General Education Requirement:

25.103 Public Speaking

Core Course Requirements: A total of 9 semester hours are required from the following:

25.104 Interpersonal Communication

25.207 Investigating Communication

25.220 Intercultural Communication
(diversity)

Areas of Concentration: Choose one course from each of three areas of concentration.

Interpersonal Relationship Management

25.215 Communication Theory

25.309 Gender Issues in Communication
(diversity)

25.313 Communication and Conflict

25.419 Communication in the Family

25.425 Communication in Relationships

25.426 Leadership and Team Building

Leadership and Social Influence

- 25.205 Understanding Social Influence
- 25.315 Persuasion
- 25.321 Argumentation
- 25.406 Evaluating Communication
- 25.413 Community Leadership
- 25.417 Evaluating Media Influence

Applied Communication

- 25.210 Organizational Communication
- 25.306 Computer Applications for Professional Communicators
- 25.307 Communication for Business Professionals
- 25.407 Interviewing
- 25.423 Communication Training in Organizations
- 25.424 Corporate Communication

Faculty Profiles

Mary Kenny Badami, professor - B.S., Fordham University School of Education; M.A., Hunter College; Ph.D., Northwestern University

Dale A. Bertelsen, professor - B.S., Rider College; M.A., Ph.D., The Pennsylvania State University

Janet Reynolds Bodenman, assistant professor - B.A., Willamette University; M.A., Ph.D., The Pennsylvania State University

Timothy B. Rumbough, assistant professor - B.A., M.A., University of Central Florida; Ph.D., Florida State University

Howard N. Schreier, professor - B.A., Brooklyn College; M.A., University of Georgia; Ph.D., Temple University

Kara Shultz, associate professor - B.S., M.A., University of Northern Colorado; Ph.D., University of Denver

Harry C. Strine III, associate professor - B.A., Susquehanna University; M.A., Ohio University

James E. Tomlinson, associate professor - B.A., M.A., California State University at Long Beach

Janice M. Youse, assistant professor - B.S., M.A., Temple University

CPS (56)

Computer Science

**Administered by: Department of Mathematics, Computer
Science and Statistics**

College: Arts and Sciences

**Campus address: 1105 McCormick Center for Human
Services**

Telephone number: (570) 389-4500

Fax number: (570) 389-3599

Department chair, e-mail: James C. Pomfret,

pomfret@bloomu.edu

Degree awarded: Bachelor of Science

About the Program

The Computer and Information Science program of the Department of Mathematics, Computer Science and Statistics gives students a thorough grounding in the design, production and analysis of software. Both the practical and theoretical issues involved in software and its development are emphasized. Students also obtain a basic understanding of hardware and its principles, particularly as it influences software. Mathematics is an essential tool in the curriculum. Students work in a variety of computing environments, ranging from single-user personal computers to multiple-user minicomputers and mainframes. Graduates are prepared for either further study in computer science or employment in the software industry.

Bloomsburg University graduates enjoy exceptional placement in a wide range of professional fields. Among career paths available are software development, numerical analysts, systems analysts, database administration, scientific programming, software engineering, computer engineering, instructional technology management, computer systems administration, electrical engineering, customer support services, human interface design, electronic game development, computer anima-

tion, virtual reality design, CAD-CAM development and computer science teacher.

The academic program prepares students for both immediate employment or admission to major graduate programs.

Required Courses

A total of 54 semester hours is required for a major in computer science, as well as 54 hours of general education requirements, to include:

25.103 Public Speaking

Requirements for the major:

53.125 Analysis I

53.126 Analysis II

53.185 Discrete Mathematics

56.121 Computer Science I

56.122 Computer Science II

56.221 Computer Science III

56.240 Assembly Language Programming

56.250 Programming Language Paradigms

56.330 Digital Design

56.350 Organization of Programming
Languages

56.355 Analysis of Algorithms and Data
Structures

56.386 Concurrent Programming and
Foundations of Operating Systems

Specialized Requirements

Select five courses totaling 15 semester
hours from the following II courses:

56.356 Windows Programming

53.361 Coding and Signal Processing

56.373 Numerical Methods in Computing

53.374 Introduction to Discrete Systems
Simulation

56.471 Numerical Analysis

56.472 Matrix Computation

- 56.491 Special Topics in Computer Science
- 56.323 Artificial Intelligence
- 56.357 Principles of Database Design
- 56.375 Local Area Networks
- 56.497 Internship in Computer Science

Choose, at most, one of the following three courses:

- 53.241 Probability and Statistics
- 53.225 Analysis III
- 53.314 Linear Algebra

Choose at least one of the following four courses:

- 56.410 Computer Graphics
- 56.430 Computer Architecture
- 56.444 Parallel Processing
- 56.450 Compiler Construction

Requirements for the Minor - The Department of Mathematics, Computer Science and Statistics offers a minor in computer science, which requires completion of six courses in computer science and mathematics.

- 56.121 Computer Science I
- 56.122 Computer Science II
- 56.221 Computer Science III

Three elective courses chosen from a list of 17 specific courses offered by the department.

Faculty Profiles

- William Calhoun, assistant professor - B.A., Carleton College; Ph.D., University of California at Berkeley
- Paul G. Hartung, professor - B.A., Montclair State College; M.A., University of Colorado; Ph.D., The Pennsylvania State University
- E. Dennis Huthnance Jr., associate professor - B.S., M.S., Ph.D., Georgia Institute of Technology

Scott Inch, associate professor - A.A., Williamsport Area Community College; B.S., Bloomsburg University; M.S., Ph.D., Virginia Polytechnic Institute and State University

Curt Jones, associate professor - B.S., Lock Haven; M.S., University of Iowa; Ph.D., The Pennsylvania State University

Zahira S. Kahn, associate professor - B.A., Punjab University; M.Sc., Islamabad University; B.S., Bloomsburg University; M.A., Ph.D., Temple University

Stephen Kokoska, professor - B.A., Boston College; M.S., Ph.D., University of New Hampshire

Lisa Lister, assistant professor - B.A., University of Maine Orono; M.S., Ph.D., University of Wyoming

Robert Montante, assistant professor - B.S., Massachusetts Institute of Technology; M.S., Ph.D., Indiana University, Bloomington

Reza Noubary, professor - B.S., M.S., Tehran University, M.Sc., Ph.D., University of Manchester, England

James C. Pomfret, chairperson, professor - B.S., Bates College; M.S., New Mexico State University; Ph.D., University of Oklahoma

Medhi Razzaghi, professor - G.C.E., Lewes Technical College; B.S., Sussex University; Ph.D., University of London

John H. Riley Jr., professor - B.A., Lehigh University; M.S., Ph.D., The University of Connecticut

Yixun Shi, associate professor - B.S., Anhui Normal University at Chuzhon, China; M.S., Shanghai Teachers University, China; Ph.D., University of Iowa

Erik Wynters, associate professor - B.S., University of New Hampshire; M.S., Ph.D., Cornell University

SOC (45)

Criminal Justice

Administered by: Department of Sociology, Social Welfare and Criminal Justice

College: Arts and Sciences

Campus address: 2106 McCormick Center for Human Services

Telephone number: (570) 389-4237

Fax number: (570) 389-2019

Department chair: I. Sue Jackson

Degree awarded: Bachelor of Arts

About the Program

Among Bloomsburg's newest and more popular programs, Criminal Justice is designed to give students a firm liberal arts education in sociology and criminal justice with a strong theoretical component. The program exposes students to the theoretical concepts and research methods of the field, introduces them to computer data analysis and prepares them for graduate study. The program provides students the opportunity to explore the causes of social problems with respect to race, class, gender, crime, the political economy, age, health, work, punishment, victimization and deviance. Students are encouraged to think critically about the structure and dynamics of social groups, institutions, ideology and the society.

Factors suggesting success in the program include strong people skills and the ability to work with diverse populations and good academic performance. Because the major is so popular, a 3.00 grade point average is required for admission.

Through the criminal justice sequence, students are exposed to justice, enforcement and corrections systems, police work, investigation and victim's services.

Students from the program have been placed in diverse settings in Pennsylvania and surrounding

states for internships and graduates report good placement rates. Internship settings include juvenile and adult probation offices; county, state and federal correctional facilities for adults and youth, U.S. Marshal's offices, the Federal Bureau of Investigation; Department of the Treasury; offices of attorneys and legal services; forensics programs, victim advocacy programs, women's centers and a variety of specialized systems.

There is also a criminal justice student organization that arranges for guest speakers from various institutions and organizations.

Required Courses

In addition to 54 semester hours of general education requirements, a total of 42 semester hours is required for a major in criminal justice. An additional 32 semester hours in electives completes the 128-hour university degree requirement. The Sociology Internship Program (45.496) accounts for 6 to 15 semester hours. Internships provide first-hand experience in the field and can be at local, state or federal agencies or private institutions. Required courses are:

Core courses

- 45.211 Principles of Sociology
- 45.255 Research Methods for Social Inquiry
- 45.260 Basic Social Statistics
- 45.462 Sociological Theory

Criminal Justice sequence

- 45.244 Introduction to Criminal Justice
(prerequisite to all other courses in the sequence)
- 45.242 Juvenile Delinquency
- 45.341 Criminology
- 45.342 Penology
- 45.343 Victimology

45.495 Criminal Justice Internship Program

Choose three from the following:

- 45.133 Introduction to Social Work and Social Welfare
- 45.213 Contemporary Social Problems
- 45.215 Racial and Ethnic Minority Groups
- 45.217 Sociology of Sports
- 45.231 Marriage and Family
- 45.316 Urban Sociology
- 45.318 Social Stratification
- 45.319 Religion and Society
- 45.320 Sociology of Women
- 45.334 Social Work Practice with Individuals and Families
- 45.345 Medical Sociology
- 45.376 Science and Society
- 45.400 Sociology of Mass Communication
- 45.441 Social Indicators
- 45.443 Sociology of Deviant Behavior
- 45.457 Sociology of Community
- 45.461 Social Problems in Rural-Urban Communities
- 45.465 Computer Applications in the Social Sciences
- 45.467 Population Problems
- 45.470 Senior Seminar
- 45.471 Independent Study in Sociology
- 45.477 Community Land Use Planning
- 45.478 Sociology of Work
- 45.490 Sociology of Aging

Faculty Profiles

Christopher F. Armstrong, professor - B.A., Washington and Lee University; M.A., Ph.D., University of Pennsylvania

Leo G. Barrile, professor - B.A., M.A., Ph.D., Boston College

David E. Greenwald, associate professor - B.A., University of Pennsylvania; M.A., Ph.D., University of California at Berkeley

James H. Huber, professor - B.S., Bloomsburg State College; M.A., University of Delaware; Ph.D., The Pennsylvania State University

I. Sue Jackson, chairperson, professor - A.B., Lycoming College; M.S.S.W., Graduate School of Social Work, University of Texas; Ph.D., Bryn Mawr College

Charles W. Laudermilch, associate professor - B.A., Moravian College; M.S.W., Wayne State University

Frank G. Lindenfeld, professor - B.A., Cornell University; M.A., Ph.D., Columbia University

Martin L. Needleman, assistant professor - B.A., University of Texas at Austin; M.A., Ph.D., State University of New York at Buffalo

Yvette J. Samson, assistant professor - B.A., Bowling Green University; M.A., Ph.D., University of California at Riverside

Neal Slone, assistant professor - B.A., State University of New York at Albany; M.A., Ph.D., University of Washington

Dale L. Sultzbaugh, associate professor - B.A., Gettysburg College; M.Div., Lutheran Theological Seminary; M.S.W., West Virginia University

Anne K. Wilson, professor - B.A., Carleton College; M.S., University of Maryland; Ph.D., The Johns Hopkins University

ESS (51)**Earth Science**

Administered by: Department of Geography and Geosciences
College: Arts and Sciences

Campus address: 116S1 Hartline Science Center

Telephone number: (570) 389-4108

Fax number: (570) 389-3028

Department chair: Norman M. Gillmeister

Degree awarded: Bachelor of Science

About the Program

The primary goal of the faculty of the geology-earth science program is to provide students with a solid foundation in geology and/or the earth sciences. This is accomplished by balancing classroom studies, laboratory exercises and field experience with ancillary courses in chemistry, physics and mathematics. The departmental program also supports the university's aim of providing a strong liberal arts background for our students. This integration of science and liberal arts successfully prepares graduates for entry-level employment in the earth science profession or for acceptance into highly competitive graduate programs in the geological sciences.

Required Courses

In addition to 54 semester hours of general education requirements, a total of 59 semester hours is required for a major in earth science. The balance of the university's 128-semester hour requirement for a bachelor's degree come from electives. Required courses are:

- 51.101 Physical Geology
- 51.102 Historical Geology
- 54.110 Introduction to Astronomy
- 51.111 Physical Geology Laboratory
- 51.112 Historical Geology Laboratory
- 51.255 Meteorology

51.259 Oceanography

51.260 Earth Materials

Choose four from the following 13 courses:

51.261 Mineralogy

51.262 Petrology

51.265 Geomorphology

51.320 Remote Sensing of the Earth

51.355 Synoptic Meteorology

51.360 Introduction to Paleontology

51.369 Structural Geology

51.370 Hydrology

51.460 Aqueous Geochemistry

51.468 Stratigraphy and Sedimentation

51.470 Groundwater Hydrology

51.475 Independent Study

51.480 Geophysics

51.493 Bibliography and Research

51.496 Internship in Earth Science

Approved courses offered by the Marine Science Center, Wallops Island, Va. (Courses in marine science are offered during the summer by the Marine Science Consortium. The consortium is a joint program sponsored by several Pennsylvania state universities. A maximum of 9 semester hours from the Marine Science Consortium may be applied toward this bachelor's degree.)

Choose one from the following two courses:

56.110 Introduction to Computer Science

92.150 Introduction to Computer and
Information Science

Or a higher-level course in programming

Choose two from the following six courses:

53.113 Pre-Calculus

53.123 Essentials of Calculus

53.124 Essentials of Calculus II

53.125 Analysis I

53.126 Analysis II

53.141 Introduction to Statistics

Choose two from the following three courses:

52.115 Fundamentals of Inorganic

Chemistry

52.131 Fundamentals of Organic Chemistry

52.216 Chemical Principles and

Measurements (highly
recommended as the second
course)

Choose one of the following two
combinations:

54.111 Introductory Physics I and

54.112 Introductory Physics II

Faculty Profiles

Shahalam M. N. Amin, assistant professor - B.Sc.,
M.Sc., University of Dhakam, Bangladesh;
M.Sc., University of Guelph, Ontario, Canada;
Ph.D., Kent State University

John E. Bodenman, assistant professor - B.A.,
Williamette University; M.S., Ph.D., Pennsylvan-
ia State University.

Duane D. Braun, professor - B.S., New York at
Fredonia; M.A., Ph.D., The Johns Hopkins Uni-
versity

Patricia J. Beyer, B.A., Valparaiso University; M.S.,
University of Illinois; Ph.D., Arizona State Uni-
versity

Norman M. Gillmeister, professor - B.A., Harvard
College; M.A., Indiana University; M.A., Ph.D.,
Harvard University

Sandra J. Kehoe-Forutan, associate professor - B.A.,
Queen's University; MCRP, The Ohio State
University; Ph.D., The University of
Queensland

Jerry T. Mitchell, B.S., M.A., Towson State Univer-
sity; Ph.D., University of South Carolina

Joseph R. Pifer, associate professor - B.S., Clarion
State College; M.A., Arizona State University

Michael K. Shepard, assistant professor - B.S.,
Vanderbilt University; Ph.D., Washington Uni-
versity

Dale A. Springer, associate professor - A.B.,
Lafayette College; M.S., University of Roches-
ter; Ph.D., Virginia Polytechnic Institute and
State University

Lawrence Tanner, associate professor - B.A., Will-
iams College; M.S., University of Tulsa; Ph.D.,
University of Massachusetts

Karen M. Trifonoff, associate professor - B.S., M.S.,
University of Akron, Ph.D., University of Kan-
sas

Cynthia Venn, assistant professor - B.A., Vanderbilt
University; M.S., Texas A&M University; Ph.D.,
University of Pittsburgh

ECN (40)

Economics, Business Economics, Political Economics

Administered by: Department of Economics
College: Arts and Sciences

Campus address: 316 Bakeless Center for the Humanities

Telephone number: (570) 389-4335

Fax number: (570) 389-4338

Department chair: Saleem Khan

Degrees Awarded: Bachelor of Arts, Bachelor of Science

About the Program

The Department of Economics at Bloomsburg University offers a systematic study of the economic activities of government, business and consumers. The core of the curriculum enables the student to master basic principles of economics, to develop analytical skills and to interpret economic phenomena.

To accommodate the diversity of interests at the undergraduate level, the department has three tracks open to economic majors, two lead to a Bachelor of Arts and one to a Bachelor of Science. The three tracks are: a general study of economics in preparation for graduate school or a career in the public or private sector; business economics, the student is interested in analytical economics and intends to pursue graduate work or career in business or government; and political economics, if the prospect of a career dealing with political and international problems in the public arena is appealing or the student intends to pursue advanced study in the field.

A total of 45 semester hours is required for a major in economics. A total of 48 semester hours is required for a major in business economics. A total of 45 semester hours is required for a major in political economics.

Required Courses

In addition to 54 semester hours in general education requirements, five core courses plus a track in either economics, business economics or political economics is required. The following five courses are required:

40.211 Principles of Economics I

40.212 Principles of Economics II

40.311 Intermediate Micro-Theory and
Managerial Economics

40.312 Intermediate Macroeconomic
Theory

40.346 Business and Economics Statistics I

Required Elective Courses - Electives in economics, business and political science in any of the options require the adviser's approval.

General Economics - Choose one of the following two courses:

40.246 Business and Economic Mathematics

53.125 Analysis I

27 semester hours in elective courses in economics, including 40.400 Introduction to Econometrics or 40.446 Business and Economic Statistics II.

Business Economics

Choose one of the following two sets:

91.221 Principles of Accounting I and

91.222 Principles of Accounting II

or 91.220 Financial Accounting and 91.223
Managerial Accounting

93.345 Human Resource Management

96.313 Business Finance

97.310 Marketing: Principles and Practice

56.110 Introduction to Computer Science
or equivalent;

Plus 15 semester hours in elective courses in economics, including 40.446

Business and Economic Statistics II

Political Economics

- 44.120 United States Government
- 44.336 Public Administration Theory
- 40.315 Business and Government
- 40.422 Contrasting Economics
- 40.460 Advanced Political Economy
- 6 semester hours of elective courses in economics
- 9 semester hours of elective courses in political science.

Minor in Economics - The minor provides a basic competence in economics for non-economics majors and constitutes 18 semester hours. Courses required for a minor in economics include:

- 40.211 Principles of Economics I
- 40.212 Principles of Economics II
- 40.311 Intermediate Micro-Theory and Managerial Economics
- 40.312 Intermediate Macroeconomic Theory

6 semester hours of elective courses in economics chosen from

General Economics Theory

- 40.313 Labor Economics
- 40.315 Business and Government
- 40.316 Urban Economics
- 40.410 Public Finance
- 40.413 Money and Banking
- 40.415 Environmental Economics
- 40.433 International Economics

Statistical Analysis

- 40.346 Business and Economic Statistics I
- 40.400 Introduction to Econometrics
- 40.446 Business and Economic Statistics II

Economic History and Systems

- 40.422 Contrasting Economics
- 40.423 History of Economic Thought
- 40.424 Economic Theory of the Western World
- 40.434 Economic Growth in Underdeveloped Areas
- 40.460 Advanced Political Economy

Faculty Profiles

Sukhwinder Bagi, assistant professor - B.A., M.Ed., M.A., Punjab University; Ph.D., Vanderbilt University

Peter H. Bohling, professor - B.A., Miami University; M.A., The University of Iowa; Ph.D., University of Massachusetts

Mehdi Haririan, professor - B.A., National University; M.A., Iowa State University; Ph.D., New School for Social Research

Woo Bong Lee, chairperson, professor - B.S., Delaware Valley College; M.S., Ph.D., Rutgers University

Saleem M. Khan, chairperson, professor - B.A., S.E., College, Bahawalpur; M.A., Government College, Lahore, Punjab University; Ph.D., J. Gutenberg University

Rajesh K. Mohindru, professor - B.A., M.A., DAV College; M.A., Ph.D., University of Pennsylvania

Robert S. Obutelewicz, assistant professor - B.A., B.S., Carson-Newman College; M.A., Ph.D., University of Massachusetts

Elizabeth P. Patch, associate professor - B.S., M.S., Ph.D., Lehigh University

Robert P. Ross, associate professor - B.A., M.A., Washington University

Engineering and Liberal Arts

College: Arts and Sciences
 Campus address: 57 Hartline Science Center
 Telephone number: (570) 389-4148
 Program coordinator: Gunther Lange
 Degree awarded: Bachelor of Arts

About the Program

The engineering and liberal arts program provides the opportunity for students to pursue a rewarding and challenging career in the high-demand field of engineering without forgoing the broader scope of a Bloomsburg University educational experience. This cooperative program of study leads to two baccalaureate degrees, one in liberal arts and sciences awarded by Bloomsburg University and one in an area of engineering from either The Pennsylvania State University or Wilkes University.

Candidates for these degrees spend three years at Bloomsburg University, where they study science, mathematics, pre-engineering and a broad variety of liberal arts subjects, followed by two years at the University Park campus of Penn State or at Wilkes University in Wilkes-Barre, where they study engineering disciplines.

Students may pursue an engineering education in any of the following areas:

- Aerospace Engineering (Penn State)
- Agricultural Engineering (Penn State)
- Ceramic Science and Engineering (Penn State)
- Chemical Engineering (Penn State)
- Civil Engineering (Penn State)
- Computer Engineering (Penn State)
- Electrical Engineering (Wilkes or Penn State)
- Engineering Management (Wilkes)

- Engineering Science (Penn State)
- Environmental Engineering (Wilkes)
- Industrial Engineering (Penn State)
- Materials Engineering (Wilkes)
- Mechanical Engineering (Wilkes or Penn State)
- Metals Science and Engineering (Penn State)
- Mining Engineering (Penn State)
- Nuclear Engineering (Penn State)
- Petroleum and Natural Gas Engineering (Penn State)

Required Academic Performance

Students wishing to complete their studies at The Pennsylvania State University must maintain a quality point average (GPA) of 3.0 overall and a 2.75 in required core courses. In a few majors, a 2.5 overall average may be sufficient for transfer and these are subject to change from year to year.

For transfer to Wilkes University, students must maintain a GPA of 2.5 overall. Transfer candidates to the environmental engineering, materials engineering and engineering management programs are required to have a 2.65 GPA in science, mathematics and pre-engineering courses, while candidates to the electrical engineering program must maintain a 2.75 average in these technical courses.

Admission Procedures

To enter the program, individuals need only apply and be accepted for admission to Bloomsburg University. However, applicants should be aware that any engineering program requires the application of strong mathematical and problem-solving skills. It is expected that the student's high school mathematics background is sufficient for enrollment in 53.125, the initial course in the required

calculus sequence, during the first semester of study.

Applicants for admission who previously were registered as degree candidates and established an academic record as degree candidates at The Pennsylvania State University prior to entering this cooperative program at Bloomsburg University will be considered readmission candidates and must meet additional enrollment criteria for readmission to The Pennsylvania State University.

Students should indicate a desire to follow this program of study at the time of admission to Bloomsburg University in order to insure sufficient time to complete all of the required courses. Notification should be made to the director of academic advisement who, in turn, will notify the coordinator of the Engineering and Liberal Arts Program. The coordinator will assign each student an academic adviser who is a member of the Pre-Engineering Advisory Committee. Students should consult both their advisers and the coordinator for assistance in schedule planning. At the end of the second year of study, students become candidates for transfer if they have maintained a sufficiently high GPA.

Transferring to Penn State

In September of the third year of study, students should apply for transfer to The Pennsylvania State University. All correspondence and the application should clearly indicate that the transfer is requested under a cooperative 3/2 program. Nov. 30 is the application deadline. Successful applicants will be offered provisional admission to Penn State for the following fall semester.

Completed applications should be supported by the following documentation: An official transcript of the applicant's final secondary school grades;

Two official transcripts of the applicant's Bloomsburg University academic record including all grades earned;

A schedule of all courses to be taken in the third year;

A letter of recommendation from the Pre-Engineering Advisory Committee.

At the end of the third year of study, two copies of the student's official Bloomsburg University transcript should be forwarded to the Admissions Office of The Pennsylvania State University. Students who have maintained the required quality point average, who have completed all required courses and who are recommended by the Pre-En-

gineering Advisory Committee, will be offered permanent admission to Penn State.

Transferring to Wilkes

At the beginning of the third year of study, students should apply for transfer to Wilkes University through the coordinator of the program at Bloomsburg University. Applications are available in the coordinator's office.

Completed applications should be supported by the following credentials: An official transcript of the applicant's final secondary school grades;

An official Bloomsburg University transcript of the applicant's grades including all grades earned during the first two years;

A schedule of all courses to be taken during the third year.

The Pre-Engineering Advisory Committee reviews these credentials and submits a recommendation to the dean of admissions of Wilkes University. Successful applicants will be offered provisional admission to Wilkes University for the following summer.

At the end of the third year, a copy of the student's official Bloomsburg University transcript should be submitted to the coordinator. Students who have maintained the required quality point average, who have completed all the required courses and who are recommended by the Pre-Engineering Advisory Committee, will be offered permanent admission to Wilkes University.

The Bloomsburg University Degree

In January of the student's final year in engineering college, the student should send an official transcript of all courses taken to the registrar at Bloomsburg University. A letter indicating intent to graduate should be sent to the coordinator of the Engineering and Liberal Arts Program so that course evaluations can be made. The registrar, upon evaluation of the transcript, will arrange for a diploma to be awarded at the university's May graduation.

Required Courses

All students in this program must complete the following 49 semester hours at Bloomsburg University plus additional courses specific to their field of interest in engineering.

General Education Requirements - All candidates must satisfy the General Education requirements of Bloomsburg University and the specific

requirements for the B.A. degree in either physics or mathematics. Students should consult the program coordinator each semester as they plan their schedules. With careful planning, it is possible to satisfy all of the requirements indicated during the student's three-year residence at Bloomsburg University

Requirements for the Major

- 54.211 General Physics I
- 54.212 General Physics II
- 54.310 Modern Atomic Physics
- 52.115 Fundamentals of Inorganic Chemistry
- 52.216 Chemical Principles and Measurements
- 53.125 Analysis I
- 53.126 Analysis II
- 53.225 Analysis III
- 53.226 Analysis IV
- 53.322 Differential Equations
- 53.314 Linear Algebra
- 56.116 Algorithmic Processes
- 54.301 Mechanics: Statics
- 54.302 Mechanics: Dynamics
- 54.180 Computer Aided Design and Engineering Graphics

Program-Specific Course Requirements

Candidates planning to pursue an engineering degree at Wilkes University must take the following courses:

Choose one:

- 54.315 Electronics
- 54.400 Advanced Physics Laboratory

Choose one:

- 09.213 Science, Technology, Human Values
- 41.105 Environmental Issues and Choices
- 44.207 Ethics, Politics and Public Policy

Candidates planning to pursue an engineering degree at Penn State must take: 25.103 Public Speaking

Candidates in certain engineering programs also must meet additional course requirements. These course requirements are as follows: Aerospace, Electrical or Nuclear Engineering, choose one:

- 53.491 Special Topics in Mathematics
- 53.492 Independent Study in Mathematics (Topic: Partial Differential Equations)

Chemical or Materials Engineering

- 52.131 Fundamentals of Organic Chemistry
- 52.232 Intermediate Organic Chemistry

Chemical or materials engineering students are excused from 54.302 Mechanics: Dynamics

Environmental Engineering

Choose one set

- 52.131 Fundamentals of Organic Chemistry and 52.232 Intermediate Organic Chemistry

or

- 50.173 Anatomy and Physiology I and 50.174 Anatomy and Physiology II

Engineering Management

Choose one:

- 53.141 Introduction to Statistics or
- 53.241 Probability and Statistics
- 40.211 Principles of Economics I
- 40.212 Principles of Economics II

Mining Engineering

- 51.101 Physical Geology
- 51.261 Mineralogy

Petroleum and Natural Gas Engineering

- 51.101 Physical Geology
- 51.102 Historical Geology

ENG (20)**English**

Administered by: Department of English
College: Arts and Sciences

Campus address: 114 Bakeless Center for the Humanities

Telephone number: (570) 389-4427

Fax number: (570) 389-3006

Department chair: Ervene Gulley

Degree awarded: Bachelor of Arts

Affiliated website: <http://hubble.bloomu.edu/~english/>

About the Program

The department offers a program leading to a Bachelor of Arts in English and provides the English courses for Bachelor of Science in Education in two areas of concentration and Communication, which culminate in certification for teaching in secondary schools. The department also offers a minor in English. The discipline of English celebrates the power of words through appreciation of literature, understanding of language and creation of good writing. English majors grounded in humanistic studies are equipped for critical thinking and effective communication.

Among career paths pursued by recent graduates are technical writing, editing, communications management, human resources management and recruiting analyst. Students interested in teaching English in secondary schools should see the specialization in English under Secondary Education.

Required Courses

A total of 42 semester hours is required for a major in English. No course may be used to satisfy more than one requirement. With the addition of 54 hours in general education requirements and elective courses of at least 32 semester hours, the 128-hour requirement for a baccalaureate degree is satisfied. Required courses include:

- 20.203 Approaches to Literary Study
- 20.226 European Literature I
- 20.236 American Literature I
- 20.363 Shakespeare
- 20.246 British Literature I or 20.247 British Literature II
- 20.256 Non-Western Literature I or 20.257 Non-Western Literature II
- 20.488 Seminar or 20.489 Seminar
- 20.492 Literary Theory and Criticism or 20.493 Bibliography and Literary Research

Choose one course from the following four courses:

- 20.311 Structure of English
- 20.312 History of the English Language
- 20.411 Modern Linguistic Theory
- 20.413 Language in American Society

Choose two courses from the following seven courses:

- 20.334 Studies in American Literature
- 20.335 Studies in American Literature
- 20.431 American Romanticism
- 20.432 American Realism
- 20.433 American Modernism
- 20.434 Contemporary American Literature
- 20.436 African-American Literature

Choose one course from the following nine courses:

- 20.341 Medieval Literature
- 20.342 The Renaissance
- 20.344 The Neoclassical Age
- 20.345 Romantic and Victorian Literature
- 20.346 Studies in British Literature
- 20.347 Studies in British Literature
- 20.364 Chaucer
- 20.370 The English Novel

20.375 Renaissance Drama

Choose one course from the following 11 courses:

- 20.301 Creative Writing: Fiction
- 20.302 Creative Writing: Non-Fiction Prose
- 20.303 Creative Writing: Poetry
- 20.306 Theory and Practice of Writing
- 20.370 The English Novel
- 20.372 Modern Novel
- 20.374 Short Story
- 20.375 Renaissance Drama
- 20.377 Modern Drama
- 20.379 Modern Poetry
- 20.391 Literature and Film

Choose two other 300-400 level courses.

Requirements for the Minor - The minor in English consists of 18 semester hours: 9 hours from courses on the 100 or 200 level except 20.101 , 20.104 , 20.200 and 20.201 ; 9 hours from courses on the 300 or 400 level and approval of the department chair.

Faculty Profiles

- William M. Baillie, professor - B.A., Ball State Teachers College; M.A., Ph.D., University Of Chicago
- S. Ekema Agbaw, associate professor - B.A., University of Yaounde; M.A., University of Leeds; Ph.D., University of Connecticut
- Mary-Jo Arn, associate professor - B.A., Westminster College; Ph.D., State University of New York at Binghamton
- Joseph F. Battaglia, assistant professor - B.A., Rutgers University; M.A., Oklahoma State University; Ph.D., State University of New York at Binghamton
- Mary G. Bernath, associate professor - B.A., M.A., Ph.D., University Of Pittsburgh
- Janice Broder, assistant professor - B.A., Mount Holyoke College, M.A., University of Michigan; M.A., Ph.D., Brandeis University
- Lawrence B. Fuller, professor - A.B., Dartmouth College; M.A., Columbia University; Ph.D., The Johns Hopkins University; M.A., The Pennsylvania State University

Ervene F. Gulley, chairperson, professor - A.B., Bucknell University; M.A., Ph.D., Lehigh University

Claire T. Lawrence, assistant professor - B.A., Pomona College; M.F.A., University of Utah; Ph.D., University of Houston

S. Michael McCully, associate professor - B.A., Hendrix College; M.A., Western Illinois University; Ph.D., University Of Iowa

Edwin P. Moses, assistant professor - B.A., Kansas State University; Ph.D., State University Of New York At Binghamton

Francis J. Peters, professor - B.A., Belmont Abbey College; M.A., Seton Hall University; Ph.D., New York University

Marion B. Petrillo, assistant professor - B.A., Wilkes College; M.A., Duquesne University; Ph.D., State University Of New York At Binghamton

David S. Randall, assistant professor - B.A., State University of New York at Potsdam; M.A., Ph.D., State University of New York at Binghamton

Terrance J. Riley, associate professor, Director, University Writing Center -B.A., University Of Michigan; M.A., Ph.D., Michigan State University

Danny L. Robinson, associate professor, B.A., Northern Arizona University; M.A., Purdue University; Ph.D., Duke University

Sabah A. Salih, associate professor - B.A., University of Baghdad, M.A., Ph.D., Southern Illinois University

Mary Beth Simmons, instructor - B.A., M.F.A., The University of Iowa

Riley B. Smith, associate professor - B.A., Ph.D., The University Of Texas, Austin

Louise M. Stone, assistant professor - B.A., M.A., University Of Michigan

Julie Vandivere, associate professor - B.A., University of Utah; M.A., Brigham Young University; M.A., Ph.D., Cornell University

Arthur G. Wemple, instructor - B.A., Vermont College; M.F.A., University of Massachusetts

Vivian Yenika-Agbaw, assistant professor, B.A., University of Yaounde; M.A., University of Connecticut; Ph.D., The Pennsylvania State University

HPE (05)**Exercise Science**

Arts and Sciences

Administered by: Department of Health, Physical Education
and Athletics

College: Arts and Sciences

Campus address: E. H. Nelson Field House

Telephone number: (570) 389-4356

Fax number: (570) 389-2099

Department chair: Susan Hibbs

Exercise Science program director: Tamra Cash

Degree awarded: Bachelor of Science

About the Program

Designed to prepare students for the wide range of careers in the growing field of wellness and fitness, Exercise Science at Bloomsburg is unique among State System of Higher Education universities. This challenging and demanding program leads to careers in corporate wellness programs, health care, education and research environments as well as in sports medicine and athletic training.

Emphasis is on the interpreted aspects of wellness and fitness, gerontology, nutrition, stress management, alternative medicine and therapies and cardiac rehabilitation in a rapidly evolving professional field. Major national corporations and graduate programs actively recruit Bloomsburg students. Many large companies, concerned with the health and productivity of employees, seek exercise science professionals to develop and manage corporate wellness facilities; other graduates go on to establish their own businesses in the personal training and fitness field or into sports medicine. A number of leading universities, including Bloomsburg, offer graduate study in Exercise Science and Adult Fitness involving clinical and research internships to encompass the full spectrum of health, including cardiac rehabilitation, physiological assessment and

training for optimal performance.

Student factors that suggest a high probability of success include strong interpersonal skills, an intense desire to help others, versatility in individual skill and fitness abilities and strength in sciences, particularly those related to anatomy and physiology.

Program faculty offer advisement to assist individual students in tailoring a specific program of study to prepare them for career objectives.

The Department of Health, Physical Education and Athletics also administers courses needed to meet general education requirements for all academic majors, supports requirements for education majors and conducts the university's athletic programs.

Required Courses

In addition to general education requirements totaling 54 semester hours, a minimum of 44 semester hours are required for a major in exercise science, with the remaining 26 semester hours required for a bachelor's degree coming from elective courses.

- 48.101 General Psychology
- 45.211 Principles of Sociology
- 50.173 Anatomy and Physiology I
- 50.174 Anatomy and Physiology II
- 50.205 Introduction to Nutrition
- 50.231 Biology of Aging
- 52.101 Introduction to Chemistry
- 05.298 Fitness and Wellness
- 09.230 Human Sexuality
- 05.321 First Aid Safety
- 05.476 Exercise Physiology
- 05.477 Methods and Materials in Adult
Physical Education

59.498 Internship in Exercise Science

Choose one of the following two courses:

05.411 Exercise Prescription and
Programming for Special
Populations

05.370 Measurement and Evaluation of
Human Performance

Choose one of the following two courses:

93.344 Principles of Management

91.498 Introduction to Health Care
Administration

Choose one of the following two courses:

05.250 Lifeguarding

05.305 Aquatic Fitness Programming

Choose one of the following four courses:

48.253 Social Psychology

48.311 Adulthood and Aging

48.380 Physiological Psychology

48.476 Principles of Behavior Modification

Choose one of the following two courses:

05.430 Current Issues in Health Education

28.290 Alcohol Use and Abuse

Requirements for the Minor

Students are required to complete a minor or area concentration. Contact a department adviser for details.

Faculty Profiles

Tamra Cash, assistant chairperson, assistant professor - B.S., Elon College; M.S. University of Tennessee; M.A., Eastern Kentucky University; Ed.D., Temple University

Charles W. Chronister, associate professor - B.S., M.Ed., East Stroudsburg State College

Mary T. Gardner, director of athletics, assistant professor - B.S., M.Ed., East Stroudsburg State College

Joseph B. Hazzard, Jr., athletic trainer, assistant professor - B.S., Salem College; M.S., Shippensburg University

Susan J. Hibbs, chairperson, associate professor - B.S., Western Kentucky University; M.Ed., East Stroudsburg State College; Ed.D., Temple University

Carl M. Hinkle, assistant professor - B.S., Montana State University; M.S., Ithaca College

Sheila A. Kaercher, Assistant Professor - B.A., William Paterson College; M.A., Bloomsburg University

Roch A. King, instructor - B.A., California State University at Fresno; M.S., Ph.D., Temple University

Linda M. LeMura, professor - B.S., Niagara University; M.S., Ph.D., Syracuse University

Thomas F. Martucci, assistant professor - B.S., Trenton State College; M.A., University of North Carolina

Swapan Mookerjee, associate professor, Health, Physical Education and Athletics - B.P.E., M.P.E., Lakshmibai National Institute of Physical Education, Gwalior, India; Ph.D., University of Wisconsin, Madison

Sharon L. O'Keefe, assistant professor - B.S., Trenton State College; M.Ed., East Stroudsburg State College

Ronald E. Puhl, associate professor - B.S., Lock Haven State College; M.S., West Chester State College

Burton T. Reese, associate professor - B.A., M.Ed., East Stroudsburg State College

David R. Rider, assistant professor - B.A., The University of Chicago; M.S., Indiana University of Pennsylvania

Roger B. Sanders, professor - B.S., West Chester State College; M.A., Ball State University

Leon Szmedra, professor - B.S., State University of New York at Brockport; M.A., University of Northern Colorado; Ph.D., Syracuse University

Henry C. Turberville Jr., associate professor - B.S., M.A., University of Alabama

Ellen West, athletic trainer, assistant professor - B.S., California University of Pennsylvania; M.S., West Virginia University

GEO (41)**Geography**

Arts and Sciences

Administered by: Department of Geography and Geosciences
 College: Arts and Sciences
 Campus address: 116S1 Hartline Science Center
 Telephone number: (570) 389-4108
 Fax number: (570) 389-3028
 Department chair: Norman M. Gillmeister
 Degree awarded: Bachelor of Arts

About the Program

Designed for students with strong analytical skills interested in spatial relationships, statistics and the where and why of people-land relationships, Geography offers three options of study that provide the education necessary for a wide range of careers in government, industry and business. Computer skills are important for this fast-paced, challenging program.

In addition to the popular Urban/Regional Planning and Environmental Planning, a general geography option allows students considerable flexibility in tailoring a program of study to meet individual needs.

Urban/Regional and Environmental Planning programs culminate in major internships that have won praise from agencies and companies working with Bloomsburg University and very frequently lead directly to career opportunities upon graduation. Geography majors are found planning the future in environmental, community, transportation and industrial areas.

The geography faculty strives to foster a spirit of learning, inquiry and curiosity among students culminating in the strengthening of their intellectual achievements. Students are provided with the necessary problem-solving skills that will contribute to their success in a rapidly changing world. These problem-solving skills are presented within the con-

text of professional, social and ethical responsibilities. The geography program, moreover, emphasizes regional, national and global, as well as environmental, concerns.

The programs in Urban/Regional Planning and Environmental Planning are aimed at providing majors with a broad based background in the planning field that will qualify them to obtain entry-level positions in the public and private sectors or prepare them for entry into graduate programs in planning.

These programs include the incorporation of interdisciplinary courses that are vital to this broad-based preparation. In addition the academic program plays a major role in preparing the students for a required internship that provides practical experience in dealing with diverse planning activities.

Required Courses

In addition to 54 semester hours of general education requirements, a total of 30 to 60 semester hours is required for a major in geography. The balance of hours toward the 128-hour university requirement for a bachelor's degree is made up of elective courses

*Option I - Emphasis on General Geography**Core Courses:*

- 41.101 World Physical Geography
- 41.102 World Cultural Geography
- 41.221 Economic Geography
- 41.242 Map Skills
- 41.462 Techniques of Geographic Measurement
- 41.492 Geography Seminar

18 semester hours to be selected from electives. The elective courses are divided into areas of specialization for your information. A minimum of 9 semester hours are to be selected from 300- and 400-level courses.

Physical:

- 41.125 Weather and Climate
- 41.303 Biogeography and Soil Resources

Human:

- 41.250 Elements of Planning
- 41.310 Population Geography
- 41.363 Urban Geography

Regional:

- 41.200 Geography of the United States and Canada
- 41.203 Geography of Australia
- or any regional geography course that may be offered

Environmental:

- 41.105 Environmental Issues and Choices
- 41.258 Environmental Conservation
- 41.301 Water Resources Management
- 41.302 Land Resources Management
- 41.304 Environmental Valuation
- 41.315 Outdoor Recreation Resources Management

Techniques:

- 41.264 Applied Cartography
- 41.342 Geographic Information Systems
- 51.320 Remote Sensing of the Earth

Special Topic: Title changes depending on topic

Optional Elective: 41.496 Internship in Geography

Upon departmental approval a student may choose to undertake an internship of 3 to 12 semester hours of which a maximum of 3 semester hours may be applied to the required elective credits.

Option II - Urban and Regional Planning

Core Courses:

- 41.101 World Physical Geography
- 41.221 Economic Geography
- 41.250 Elements of Planning
- 41.350 Advanced Planning
- 41.497 Internship in Planning
- 41.498 Applied Planning Seminar

Electives (choose 3 from the following six courses)

- 41.258 Environmental Conservation
- 41.302 Land Resources Management
- 41.304 Environmental Valuation
- 41.315 Outdoor Recreation Resources Management
- 41.363 Urban Geography
- 51.100 Environmental Geology

Skills and Tools

- 09.231 Technical Writing
- 25.103 Public Speaking
- 53.141 Introduction to Statistics
- 56.110 Introduction to Computer Science

Choose two from the following four courses:

- 41.242 Map Skills
- 41.264 Applied Cartography
- 41.342 Geographic Information Systems
- 51.320 Remote Sensing of the Earth

Cognate Areas

Economics (choose at least one from the following four courses)

- 40.211 Principles of Economics I
- 40.212 Principles of Economics II
- 40.316 Urban Economics
- 40.410 Public Finance

Political Science

- 44.120 United States Government
- 44.452 State and Local Government

Also recommended are:

- 44.438 Public Personnel Administration
- 44.452 Public Policy

Sociology (choose at least one from the following five courses)

- 45.211 Principles of Sociology
- 45.213 Contemporary Social Problems
- 45.316 Urban Sociology
- 45.457 Sociology of Community
- 45.468 Social Service Planning

Option III - Emphasis on Environmental Planning

Core Courses:

- 41.101 World Physical Geography
- 41.105 Environmental Issues and Choices
- 41.250 Elements of Planning
- 41.258 Environmental Conservation
- 41.301 Water Resources Management
- 41.302 Land Resources Management
- 41.350 Advanced Planning

41.497 Internship in Planning

41.498 Applied Planning Seminar

Electives (choose a minimum of three from the following five courses)

41.303 Biogeography and Soil Resources

41.304 Environmental Valuation

41.315 Outdoor Recreation Resources
Management

51.100 Environmental Geology

51.370 Hydrology

Skills and Tools

09.231 Technical Writing

25.103 Public Speaking

44.452 State and Local Government

53.141 Introduction to Statistics

92.150 Introduction to Computer and
Information Science

44.120 United States Government (strongly
recommended)

Choose two from the following four courses

41.242 Map Skills

41.264 Applied Cartography

41.342 Geographic Information Systems

51.320 Remote Sensing of the Earth

Minor in Environmental Planning - The minor in geography constitutes 18 semester hours and must include the following courses:

41.105 Environmental Issues and Choices

41.250 Elements of Planning

41.258 Environmental Conservation

41.301 Water Resources Management

41.302 Land Resources Management

Choose one from the following three
courses:

41.315 Outdoor Recreation Resources
Management

41.242 Map Skills

41.264 Applied Cartography

Faculty Profiles

Shahalam M. N. Amin, assistant professor - B.Sc., M.Sc., University of Dhakam, Bangladesh; M.Sc., University of Guelph, Ontario, Canada; Ph.D., Kent State University

John E. Bodenman, assistant professor - B.A., Williamette University; M.S., Ph.D., Pennsylvania State University.

Duane D. Braun, professor - B.S., New York at Fredonia; M.A., Ph.D., The Johns Hopkins University

Patricia J. Beyer, B.A., Valparaiso University; M.S., University of Illinois; Ph.D., Arizona State University

Norman M. Gillmeister, professor - B.A., Harvard College; M.A., Indiana University; M.A., Ph.D., Harvard University

Sandra J. Kehoe-Forutan, associate professor - B.A., Queen's University; MCRP, The Ohio State University; Ph.D., The University of Queensland

Jerry T. Mitchell, B.S., M.A., Towson State University; Ph.D., University of South Carolina

Joseph R. Pifer, associate professor - B.S., Clarion State College; M.A., Arizona State University

Michael K. Shepard, assistant professor - B.S., Vanderbilt University; Ph.D., Washington University

Dale A. Springer, professor - A.B., Lafayette College; M.S., University of Rochester; Ph.D., Virginia Polytechnic Institute and State University

Lawrence Tanner, professor - B.A., Williams College; M.S., University of Tulsa; Ph.D., University of Massachusetts

Karen M. Trifonoff, associate professor - B.S., M.S., University of Akron, Ph.D., University of Kansas

Cynthia Venn, assistant professor - B.A., Vanderbilt University; M.S., Texas A&M University; Ph.D., University of Pittsburgh

GEO (41)**Geology**

Administered by: Department of Geography and Geosciences

College: Arts and Sciences

Campus address: 116S1 Hartline Science Center

Telephone number: (570) 389-4108

Fax number: (570) 389-3028

Department chair: Norman M. Gillmeister

Degree awarded: Bachelor of Science in Geology

About the Program

The primary goal of the faculty of the geology-earth science program is to provide students with a solid foundation in geology and/or the earth sciences. This is accomplished by balancing classroom studies, laboratory exercises and field experience with ancillary courses in chemistry, physics and mathematics. The departmental program also supports the university's aim of providing a strong liberal arts background for students. This integration of science and liberal arts successfully prepares graduates for entry-level employment in the earth science profession or for acceptance into highly competitive graduate programs in the geological sciences.

Required Courses

General Education Requirements - In addition to 54 semester hours of general education requirements, 72 semester hours is required for a major in geology. The balance of the university's 128-hour requirement for an undergraduate degree comes from elective courses. The degree program in geology requires the following courses:

- 51.101 Physical Geology
- 51.102 Historical Geology
- 51.111 Physical Geology Laboratory
- 51.112 Historical Geology Laboratory
- 51.261 Mineralogy

- 51.262 Petrology
- 51.360 Introduction to Paleontology
- 51.265 Geomorphology
- 51.369 Structural Geology
- 51.468 Stratigraphy and Sedimentation
- 51.470 Groundwater Hydrology
- 51.493 Bibliography and Research
- 51.460 Aqueous Chemistry
- 51.480 Geophysics (highly recommended)
- 51.451 Field Techniques in Earth Science or equivalent 4 to 6 semester hours field course

Choose one of the following two sets of courses:

- 53.123 Essentials of Calculus and 53.141 Introduction to Statistics
- or 53.125 Analysis I and 53.126 Analysis II

Choose two of the following three courses:

- 52.115 Fundamentals of Inorganic Chemistry
- 52.131 Fundamentals of Organic Chemistry
- 52.216 Chemical Principles and Measurements (highly recommended as the second course)

Choose one of the following two sets of courses:

- 54.111 Introductory Physics I and 54.112 Introductory Physics II
- or 54.211 General Physics I and 54.212 General Physics II

Note: 51.480 Geophysics may be substituted for the second semester of physics.

Requirements for the Minor - A total of 20 semester hours is required for a minor in geology. A minor program in geology requires the following:

- 51.101 Physical Geology
- 51.102 Historical Geology
- 51.111 Physical Geology Laboratory

51.112 Historical Geology Laboratory
12 hours selected from the following 11
courses:

51.261 Mineralogy
51.262 Petrology
51.320 Remote Sensing of the Earth
51.355 Synoptic Meteorology
51.360 Introduction to Paleontology
51.265 Geomorphology
51.369 Structural Geology
51.370 Hydrology
51.468 Stratigraphy and Sedimentation
51.470 Groundwater Hydrology
51.475 Independent Study
51.460 Aqueous Chemistry
51.480 Geophysics (highly recommended)

Faculty Profiles

Shahalam M. N. Amin, assistant professor - B.Sc.,
M.Sc., University of Dhakam, Bangladesh;
M.Sc., University of Guelph, Ontario, Canada;
Ph.D., Kent State University

John E. Bodenman, assistant professor - B.A.,
Williamette University; M.S., Ph.D., Pennsylvan-
ia State University.

Duane D. Braun, professor - B.S., New York at
Fredonia; M.A., Ph.D., The Johns Hopkins Uni-
versity

Patricia J. Beyer, B.A., Valparaiso University; M.S.,
University of Illinois; Ph.D., Arizona State Uni-
versity

Norman M. Gillmeister, professor - B.A., Harvard
College; M.A., Indiana University; M.A., Ph.D.,
Harvard University

Sandra J. Kehoe-Forutan, associate professor - B.A.,
Queen's University; MCRP, The Ohio State
University; Ph.D., The University of
Queensland

Jerry T. Mitchell, B.S., M.A., Towson State Univer-
sity; Ph.D., University of South Carolina

Joseph R. Pifer, associate professor - B.S., Clarion
State College; M.A., Arizona State University

Michael K. Shepard, assistant professor - B.S.,
Vanderbilt University; Ph.D., Washington Uni-
versity

Dale A. Springer, professor - A.B., Lafayette Col-
lege; M.S., University of Rochester; Ph.D., Vir-
ginia Polytechnic Institute and State University

Lawrence H. Tanner, professor - B.A., Williams Col-
lege; M.S., University of Tulsa; Ph.D., University
of Massachusetts

Karen M. Trifonoff, associate professor - B.S., M.S.,
University of Akron, Ph.D., University of Kan-
sas

Cynthia Venn, assistant professor - B.A., Vanderbilt
University; M.S., Texas A&M University; Ph.D.,
University of Pittsburgh

PHY (54)**Health Physics**

Administered by: Department of Physics

College: Arts and Sciences

Campus address: 55 Hartline Science Center

Telephone number: (570) 389-4152

Fax number: (570) 389-3028

Program coordinator: Jack C. Couch

Degree awarded: Bachelor of Science

About the Program

The health physics profession is diverse and one of the most interesting and rewarding fields of scientific endeavor. It is devoted to protecting people and their environment from potential radiation hazards, while making it possible to enjoy the benefits of the peaceful use of the atom. It has common scientific interests with many areas of specialization, including physics, biology, engineering, chemistry, environmental sciences and medicine. Health physicists are engaged in a variety of occupations, including the power industry and the environmental and regulatory agencies of government. Also, they work in research laboratories, hospitals and pharmaceutical manufacturing, where they assist with medically beneficial uses of radiation.

The Bachelor of Science in Health Physics provides a foundation of courses in physics, mathematics, chemistry and biology, as well as specialized courses in health physics. As with other science majors, the major in health physics requires dedication, so, for success, students must spend about 50 or more hours per week on academic studies, involving classes, laboratories and outside preparation. Modern laboratories introduce students to state-of-the-art instrumentation and advanced techniques of measurement. Internships are offered in industrial, medical or government settings.

The program provides students with the knowledge and skills necessary to begin professional work or to succeed in graduate school. Qualified Bloomsburg graduates are sought by nationally recognized graduate programs at Ohio State University, University of Florida and Texas A and M University. Also, across the nation, there has been an extended shortage of health physicists, so today, there are excellent prospects for professional employment immediately upon graduation from Bloomsburg.

Required Courses

In addition to 54 semester hours in general education requirements, the bachelor of science program in health physics requires 68 semester hours, with the balance of the university's 128-semester hour requirement for a bachelor's degree coming from elective courses. Required courses:

- 54.211 General Physics I
- 54.212 General Physics II
- 54.310 Modern Atomic Physics
- 54.315 Electronics
- 54.320 Nuclear Radiation I
- 54.330 Radiation Physics
- 54.360 Health Physics
- 54.420 Nuclear Radiation II
- 54.460 Applied Health Physics
- 59.498 Internship in Natural Sciences and Mathematics
- 53.125 Analysis I
- 53.126 Analysis II
- 53.225 Analysis III
- 53.241 Probability and Statistics
- 56.116 Algorithmic Processes for Computers
- 52.115 Fundamentals of Inorganic Chemistry

52.216 Chemical Principles and
Measurements

50.110 Biology of Animals

50.120 Biology of Plants

50.411 Radiation Biology

Faculty Profiles:

Christopher Bracikowski, assistant professor - B.S.,
University of Rochester; Ph.D., Georgia Insti-
tute of Technology

Jack G. Couch, professor - B.A., Utah State Univer-
sity; M.A., Vanderbilt University; Ph.D., Texas A
& M University

Nathaniel Greene, assistant professor - B.S., Antioch
College; M.A., Ph.D., Boston University

Gunther L. Lange, assistant professor - B.S., Ph.D.,
The Ohio State University

P. James Moser, chairperson, professor - B.S., M.S.,
Ph.D., The Pennsylvania State University

Peter C. Stine, associate professor - B.A., Wesleyan
University; Ph.D., The Pennsylvania State Uni-
versity

HIS (42)**History**

Administered by: Department of History
College: Arts and Sciences
Campus address: 104 Old Science Hall
Telephone number: (570) 389-4156
Fax number: (570) 389-4946
Department chair: William Hudon
Degree awarded: Bachelor of Arts

About the Program

The Bloomsburg University Department of History delivers a great course of studies where students and faculty work together in pursuit of excellence.

Students who major or minor in history at Bloomsburg bring to their college experience both excellent high school credentials and strong intellectual curiosity. The Department of History provides scholarships for outstanding new students, as well as scholarship support for our finest advanced students; in fact, no major at Bloomsburg University offers more scholarships and fellowships than does the Department of History. The department is dedicated to honing students' intellectual skills and fostering their love of learning while providing a solid grounding in American, European and world history. Students begin their training in History with a carefully planned series of introductory courses that provide a fundamental survey-level knowledge of the history of the United States as well as world and regional history. They then go on to upper-level seminar courses where they develop a deeper level of knowledge and enhance their ability to work accurately and critically with secondary sources and with primary source documents. Upper-level courses in the Department of History place heavy emphasis on writing oral presentation

and research skills. They also foster use of computers and other information technologies that facilitate historical research and analysis.

The excellence of the program is manifest in the academic success of our students and faculty. Students in the program often present their research at honors conferences; several student research papers have won prizes and several more have been published. The history faculty is composed of dedicated working scholars who make teaching their first professional priority. The faculty collectively have produced a long list of important books, research articles and conference presentations. They daily bring this professional experience and expertise into the classroom, where it is integrated into teaching that students routinely recognize as excellent. Faculty and secretarial staff members all work constantly to improve service for our students, evident, for instance, in the accessibility of faculty, the variety of internship opportunities available to students and the quality of student advisement.

Successful undergraduate students in the Department of History pursue a wide variety of careers. Many go on to successful careers in fields normally associated with history, such as law, law enforcement, public history, public administration and education. Students from the program are teaching in primary and secondary schools across the United States. Many of students have pursued graduate training in history at major universities and several have gone on to careers as university professors. Others have distinguished themselves in the business and corporate worlds, in industries ranging from insurance to high-technology information services.

Required Courses

In addition to 54 semester hours of general education requirements, a total of 36 semester hours is required for a major in history with at least 15 semester hours drawn from 300 and 400 level courses. It is strongly recommended that student take 42.398 Research and Writing Skills in their junior year.

42.112 Origins of the Modern World

42.113 The Modern World

42.121 United States History Survey:
Colonial Period to 1877

42.122 United States History Survey: 1877 to
the Present

42.133 The Ancient and Medieval Worlds

42.398 Research and Writing Skills

Choose one from the following four courses:

42.141 The Modern Far East

42.142 Latin America: From European
Colonization to the Present

42.143 Black Africa

42.144 Islamic and Hindu Worlds: Middle
East, India and Malaysia

Any course, 3 semester hours, is selected from upper-division (300-400 level) offerings in American history.

Any course, 3 semester hours, is selected from upper-division course (300-400 level) offerings in Western civilization or European history covering the period through 1815.

Any course, 3 semester hours, is selected from upper-division (300-400 level) offerings in European history covering the period since 1789.

Electives in history: any two 300 or 400-level history courses.

Minor in History - This program requires 18 semester hours of history courses with at least 6 semester hours in 300 or 400 level courses. The minor includes:

6 semester hours, any two 100 level history
courses

6 semester hours, any two 200 or 300 level
history courses

3 semester hours, any of the 300 or 400 level
history courses

42.398 Research and Writing Skills

The program for the history minor provides the following features: at least one directed exercise in independent historical research (42.398); a minimal background in those courses at the 100 level that are basic to and required of history majors; flexibility in framing a minor pertinent to the student's academic interest; and at least one course in addition to 42.398 at an advanced requirement level.

Faculty Profiles

Richard G. Anderson, associate professor - B.A., Western Kentucky State College; M.A., Ph.D., Texas Christian University

Jeffrey A. Davis, assistant professor - B.A., M.A., Eastern Washington University; Ph.D., Washington State University

Nancy Gentile Ford, associate professor - B.A., M.A., Ph.D., Temple University

Michael C. Hickey, associate professor - B.A., M.A., Ph.D., Northern Illinois University

Abner (Woody) Holton III, assistant professor - B.A., University of Virginia; Ph.D., Duke University

Walter Howard, associate professor - B.A., M.A., University of West Florida; Ph.D., Florida State University

William V. Hudon, professor - B.A., Fordham University; M.A., Ph.D., University of Chicago

Douglas Karsner, assistant professor - B.A., Mansfield State College; M.A., Ph.D., Temple University

Jeanette Keith, professor - B.A., Tennessee Technological University; Ph.D., Vanderbilt University

Arthur W. Lysiak, associate professor - B.S., M.A., Ph.D., Loyola University

Mark S. Quintanilla, assistant professor - B.S., Wingate University; M.A., East Carolina University; Ph.D., Arizona State University

Lisa Stallbaumer, assistant professor - B.A., M.A., Wichita State University; Ph.D., University of Wisconsin-Madison

FRE (10) GER (11) SPN (12) RUS (13) ITL (14) CHI (16) LAT (18)

Languages and Cultures

French, German, Spanish, Chinese Studies and others

Administered by: Department of Languages and Cultures

College: Arts and Sciences

Campus address: 230 Old Science Hall

Department chair: Jing Luo

Telephone number: (570) 389-4750

Fax number: (570) 389-4459

Degree awarded: Bachelor of Arts

(French, German or Spanish)

Affiliated website: <http://vesta.bloomu.edu/~langcult>

About Languages and Cultures

Knowledge of other languages carries advantages from the most utilitarian to general and abstract applications of learning. Foreign language study, thus benefits all students, no matter what their goals, interests or ideals are.

Studying another language helps students become more competitive after graduation. Employers and graduate schools are receiving an ever-increasing number of applications from qualified students and are looking for something special. A foreign language may be the ticket to a rewarding career in the areas of international business, education, health care, tourism, foreign service, management and social service, to mention just a few. No matter what field you specialize in today, you stand to benefit from the study of another language and culture because it provides you with a broader view of the world and an additional marketable skill.

Additionally, knowledge of another language fosters greater awareness of cultural diversity among the peoples of the world and allow greater appreciation of other people's values and ways of life.

Those who learn a second or third language also gain greater insight into their native language and

culture. Knowledge of a second language, therefore, not only allows you to learn about others, you also learn more about yourself. Not only that, study of another language helps students comprehend the intricate connections between language and thought and thereby enhances higher-order thinking skills.

About the Programs

The Department of Languages and Cultures offers language instruction in seven languages: Chinese, French, German, Italian, Latin, Russian and Spanish. Japanese is offered on self-instructional learning basis. A student interested in a teaching career may elect French, German or Spanish as an area of specialization leading to a Bachelor of Science in Education.

The department offers majors and minors in French, German and Spanish, as well as a career concentration in Chinese.

As part of the department's mission in general education, the languages and cultures curriculum serves to enhance the quality of the students' liberal arts education with an international and multicultural perspective. In addition to developing proficiency for communication with speakers of other languages, the program also offers courses in culture and civilization taught in English to support the goals of global/cultural awareness and international education.

Courses in culture, civilization oral expression, literature and phonetics are included in the area of concentration. Students wishing to combine proficiency in languages and cultures with another major may elect a minor in French, German or Spanish, as well as basic and intermediate courses in the other languages offered. Area concentrations in

French, German and Spanish are offered for students in early childhood education, elementary education and secondary education. The department also offers a career concentration in Chinese Studies and an interdisciplinary minors program of Spanish-American Studies with the Department of Anthropology.

Study Abroad Programs are available in China, France, Germany, Mexico, Puerto Rico and Spain.

Individual Practice - Audio tapes, videotapes and compact disks for language courses are available for individual practice in the language laboratory, located in 238 Old Science Hall. The language laboratory is equipped with the latest computer technology.

Language Awards - Outstanding Academic Achievement - This award is presented to any graduating senior who has a minimum GPA of 3.8 for all courses in the major (A student majoring in more than one language may be considered for an award in each language.); has a minimum GPA in all work at the university of 3.5; and is recommended by the majority of the faculty of the major language.

Student Organizations include: Asian Language and Culture Club, French Club, German Club, H.A.B.L.A.S., Italian Club, Phi Sigma Iota and Spanish Club

French

Students who have studied a language elsewhere should consult the department chairperson for appropriate placement. Generally, the student should schedule courses as follows:

With one year of high school study or equivalent, schedule 10.101.

With two years of high school study or equivalent, schedule 10.102.

With three years of high school study or equivalent, schedule 10.203.

With four years of high school study or equivalent, schedule 10.204.

With no previous language study, schedule special sections of 10.100 for beginners in French.

Education Majors - Students majoring in early childhood education and elementary education may elect an area of concentration in French. Students should consult their advisers in the Department of Languages and Cultures about course selection. It is recommended that courses in culture and civilization oral expression, literature, phonet-

ics and foreign language in elementary school be taken to complete the area of concentration.

The area of concentration for students in early childhood education and elementary education is under revision and students should inquire about new requirements.

Requirements for a major leading to the Bachelor of Science in Education are found in the section on Secondary Education. Students should inquire in the department about changes in the requirements.

Programs Abroad - All language students are urged to seek opportunities to study abroad. An exchange and internship program with the University of Nancy's Faculté des Lettres and the Commercial Institute in Nancy, France, brings French students to Bloomsburg University. It affords Bloomsburg University students in French, regardless of their major, to study at Nancy. French majors, minors and/or business majors with a strong concentration in French, are especially encouraged to take part in this program.

Required Courses

A total of 36 semester hours is required for a major in French in addition to 54 semester hours of general education requirements. Other than the General Education distribution requirements, the department does not restrict the choice of courses in this area, however, students are encouraged to choose general education courses in consultation with their advisers. The balance of courses to meet the university's 128-semester hour requirement for a bachelor's degree come from elective courses. Required courses for the major include:

10.203 French III

10.204 French IV

10.205 Applied Phonetics and Pronunciation

10.206 Structure of the French Language

10.207 Conversation: French Daily Life and Customs

10.211 Foundations of French Culture and Civilization

10.401 Advanced French Language

10.402 Contemporary Issues in Francophone Media

10.422 Masterpieces of French Literature

10.423 Black Francophone Writers and Culture

Students will choose 6 credits of electives by advisement to fulfill the requirement.

Requirements for the Minor:

10.203 French III

10.204 French IV

10.206 Structure of the French Language

Plus 12 credits in French above the level of French III, for a total of 21 credit hours.

German

Requirements for the Major in German - A minimum of 36 credit hours is required for the major, beginning with German III (11.203). Students need German II (11.102) or the equivalent before entering the major sequence.

Students majoring in Education may elect an area of concentration in German. Students should consult their advisers in the Department of Languages and Cultures about course selection. It is recommended that courses in culture and civilization oral expression, literature, phonetics and foreign language in elementary school be taken to complete the area of concentration.

Area concentration in German is offered to Education majors, who should check with their adviser to develop a plan of study.

Requirements for a major leading to the Bachelor of Science in Education are found in the section on Secondary Education. Students should inquire in the department about changes in the requirements.

Study Abroad in Jena, Germany - Bloomsburg University offers an exchange program with the Friedrich-Schiller-Universität in Jena, Germany. The Jena program is open to all Bloomsburg University students who have had at least two years of college German or the equivalent. Jena offers a broad range of courses for exchange students, such as German Language, Culture, Literature, Intercultural Business and Communication. Students are placed in courses after taking a placement test in Jena. The exchange usually takes place in spring semester. Students are encouraged to participate in their sophomore or junior years.

Required Courses:

11.203 German III

11.204 German IV

11.205 Applied Phonetics and Pronunciation

11.206 Structure of the German Language

11.207 Conversation: Daily Life and Customs

11.211 Culture and Civilization I

11.331 Selected Twentieth Century Writers

11.402 Contemporary Issues in the German Media

11.422 Masterpieces of German Literature

Choose one of the following two courses:

20.311 Structure of the English Language

20.411 Modern Linguistics Theory

Students choose six credits minimum of electives by advisement. Students who are exempted from any of the above through credit by examination or equivalency or because they enter the sequence with a course above 11.203, substitute an equal number of credits from the electives by advisement.

Requirements for the Minor in German:

11.203 German III

11.204 German IV

11.206 Structure of the German Language

Plus 12 credits in German above the level of German III, for a total of 21 credit hours.

Spanish

Students who have studied a language elsewhere should consult the department chairperson for appropriate placement. Generally, the student should schedule courses as follows:

With no background in the language, schedule 12.100

With one year of high school study or equivalent, schedule 12.101.

With two years of high school study or equivalent, schedule 12.102.

With three years of high school study or equivalent, schedule 12.203.

With four years of high school study or equivalent, schedule 12.204.

With no previous language study, schedule special sections of 12.100 for beginners in Spanish.

Education Majors - Students majoring in Education may elect an area of concentration in Spanish. Students should consult their advisers in the Department of Languages and Cultures about course selection. It is recommended that courses in culture and civilization oral expression, literature, phonetics and foreign language in elementary school be taken to complete the area of concentration.

The area of concentration for students in early childhood education and elementary education is

under revision and students should inquire about new requirements.

Requirements for a major leading to the Bachelor of Science in Education are found in the section on Secondary Education. Students should inquire in the department about changes in the requirements.

Annual Spanish Section Award - This award is presented to a senior who: excels in the Spanish language, has rendered language-related service to the department and the university, and is recommended by the majority of the faculty in the Spanish section

Study Abroad Opportunities: The department offers an exchange program with the University of Puerto Rico, Cayey Campus. The UPR is open to all university students who have had at least two years of college Spanish. A Summer Abroad program is also offered, the first seven days at Bloomsburg University and then four weeks at the Universidad Pontificia of Salamanca, Salamanca, Spain. The program also includes trips to different cultural sites.

Internship Opportunities: Students can enroll in 38.498 Internship in the Humanities, transferred as an elective in the Spanish program. Internships in Spanish require total cultural immersion and must be designed to take place in a Spanish-speaking country. Internships are tailored to the students' interest and according to the skills gained in the language. Interns have both an on-site and a faculty supervisor to oversee and guide their work.

Career Opportunities: A student interested in a teaching career can elect Spanish as an area of specialization leading to a Bachelor of Science in Secondary Education or as a Career Concentration in Elementary Education. Students wishing to combine proficiency in Spanish with another major may elect 21 semester credit hours to complete a minor in Spanish. Other career opportunities exist in business administration, commerce, banking, public relations, translation and interpretation services, publishing, journalism, the tourist industry and hotel management. Since Spanish is spoken around the world, highly qualified bilingual graduates are in demand by the international business community, the Foreign Service and by international agencies such as the World Bank, the World Health Organization and the United Nations.

Requirements for the Major - Besides meeting the general education requirements, the student

will take a total of 36 semester credit hours above the 100-level to complete his/her major. Along with foundational course work to develop proficiency in the language in the four skills and the learning of technical tools to approach literary works, the program also offers courses in culture and civilization taught in English to support the goals of global-cultural awareness and international education.

Required courses include:

- 12.203 Spanish III
- 12.204 Spanish IV
- 12.205 Phonetics: Theory and Practice
- 12.206 Structure of the Spanish Language
- 12.207 Conversation: Hispanic Daily Life and Customs
- 12.211 Spanish Culture and Civilization
- 12.214 The Hispanic World Today
- 12.306 Structure and Composition
- 12.331 Selected 20th Century Writers
- 12.402 Issues in the Hispanic Media
- 12.421 Hispanic Prose

The following two courses may count as required courses with the chair's approval:

- 12.250 Spanish for Spanish Speakers
- 12.212 Spanish American Culture and Civilization

Electives should be chosen from Spanish courses numbered above 12.204 with advisement.

Requirements for the Minor

- 12.203 Spanish III
- 12.204 Spanish IV
- 12.206 Structure of the Spanish Language
- Plus 12 credits in Spanish above the level of Spanish III, for a total of 21 credit hours.

Career Concentration in Chinese Studies

The concentration program requires 18 credit hours of study, with 12 credits in core courses and 6 credits in elective courses. Bloomsburg University maintains academic relationships with several universities in China. Currently, QingHai Normal University, Northeast Normal University and ShenYang Teacher's College offer study-abroad programs to our students. Students taking courses through programs with these universities may have credits applied to the concentration.

Required Courses:

- 16.105 Chinese I
- 16.106 Chinese II
- 16.211 Foundations of Chinese Civilization

16.212 China Today

Elective Courses:

42.141 The Modern Far East

31.346 Art History of the Far East

44.160 Nations, States and Governments

Faculty Profiles

Brigitte L. Callay, professor, B.A., M.A., University of Delaware; Ph.D., University of Louvain, Belgium

Patricia Dorame-Holoviak, associate professor, Lic. in Spanish Lit., University of Veracruz, Mexico; Ph.D., University of Texas at Austin

Gilbert Darbouze, associate professor, Ph.D., City College of New York; Ph.D., Graduate School and University Center-CUNY

Solange Garcia-Moll, assistant professor, B.A., M.A., University of Puerto Rico; Ph.D., Temple University

Amarilis Hidalgo-DeJesus, associate professor, B.A., University of Puerto Rico; M.A., Temple University; Ph.D., University of Colorado

Brenda Keiser, associate professor, B.A., Kutztown State College; M.A., Middlebury College; Ph.D., University of Pennsylvania

Jing Luo, associate professor, B.A., M.A., Beijing University; Ph.D., The Pennsylvania State University

Jesus Salas-Elorza, assistant professor, B.A., Universidad Eracruzana, Mexico; M.A., Ohio University; Ph.D., The University of Colorado

Luke Springman, associate professor, B.A., Indiana University; M.A., Ph.D., Ohio State University

MSC (27)**Mass Communications**

Arts and Sciences

Administered by: Department of Mass Communications
College: Arts and Sciences

Campus address: 1100 McCormick Center for Human
Services

Telephone number: (570) 389-4836

Fax number: (570) 389-3983

Department chair: Richard Ganahi

Degree awarded: Bachelor of Arts

About the Program

In mass communications, students prepare to work as professionals in public relations, advertising, journalism or telecommunications. The degree program balances a broad knowledge of the liberal arts and natural sciences with the professional and theoretical preparation needed by today's media professionals. Bloomsburg offers:

Relevant course work in the competency areas of writing, professional skills and theoretical foundations.

Internship experiences at off-campus sites necessary to complete the student's professional training.

Professional experience with four campus media: The Voice, the competitive, weekly student newspaper; Spectrum, the nationally recognized, full-color regional magazine; BUTV, provides student-produced television programming; WBUQ-FM, student managed radio station featuring call-in and music programs.

Active local chapters of the Association of Public Relations Students (APRS), the

American Advertising Federation (AAF), the Society of Professional Journalists (SPJ) and the National Broadcasting Society-Alpha Epsilon Rho (NBS-AERho).

Degree Program

To earn a Bachelor of Arts in Mass Communications, majors must complete the necessary semester hours in three competency areas: writing, professional skills and theoretical foundations.

Practica and Internships - Students are encouraged to participate in practica or internships during which they are expected to practice the technical aspects of their specialties. Semester hours earned are in addition to the core and specialty areas. Internships are available on and off campus; some are paid. Students may take both an off-campus internship and an on-campus practicum to be as well prepared technically as possible. Some practica are available on student productions such as The Voice, Bloom News, Spectrum magazine and a range of other campus communications activities.

Recommended Preparation - High school students interested in communication-related careers should become involved in school media. These media can include newspapers, yearbooks, magazines, radio, video or television production and programs.

The committed student can gain valuable experience through volunteer efforts with community groups such as chambers of commerce, tourism offices and other non-profit organizations.

Admission Requirements - Admission to the mass communications program is by application to the chair and is limited to approximately 60 students, who should have achieved a cumulative

grade point average of 2.5 or higher. Acceptance into the program depends, however, not only on the GPA, but also on past experience and potential. Students should exhibit strong writing, visual and creative qualities and a record of interest and participation in media-related extracurricular activities. Students are encouraged to make a case for their admission in the light of previous experience even if they feel their GPAs alone may not justify admission. Students will be notified of their acceptance as mass communications majors as quickly as possible. Students are expected to have declared their majors no later than the time they have accumulated approximately 72 semester hours.

Campus Media - Students have the opportunity to write for a number of university publications. These include the campus student newspaper, *The Voice*; the four-color regional magazine, *Spectrum*; the student yearbook, *The Obiter*; the annual student handbook, *The Pilot*; BUTV and WBUQ-FM.

Spectrum is a full-color regional magazine published twice a year within the department. *Spectrum* has earned numerous national awards, including the American Scholastic Press Association's "Outstanding Magazine in the Country."

The Voice is a student newspaper with a circulation of 4,500. About 40 to 50 students work on the paper each semester. They participate in all management decisions. Students enjoy full editorial control and operate all newspaper departments.

The department operates three television studios for formal course work and to provide hands-on experience with modern broadcast equipment. In cooperation with BUTV/Radio Services, the department encourages students to participate in campus broadcast activities including student-produced programs, local telethons, charity drives, televised town council meetings and sporting events.

Bloom News is a weekly half-hour student-produced news program cablecast live and rebroadcast over local community channels. Students manage all editorial functions, studio production activities and all post-production work.

Students also staff a campus radio station, WBUQ-FM. The FM station has acquired the minimum local audience necessary for recognition by Arbitron, the country's major radio audience rating service. Students participate in station management, programming and as on-air personalities for student-produced music and talk programs.

In areas of advertising and public relations, students gain experience with *The Voice* and *Spectrum* magazine and they enter major regional and national competitions. The publications provide opportunities for sales management and account development.

Required Courses

In addition to 54 semester hours in general education requirements, a total of 36 to 42 semester hours is required for a major in mass communications. The balance of the university's 128-semester hour requirement for a bachelor's degree comes from elective courses. The department's curriculum ensures better preparation for today's changing communications industry. Graduates are broadly trained for careers in public relations, advertising, journalism and telecommunications. It is organized around three competency areas: theoretical knowledge, writing proficiency and professional development.

27.110 Mass Communications and the
Popular Arts

27.230 Newswriting

27.241 Media Graphics or 27.271 Media
Operations

27.310 Media Law

27.315 Social Foundations of the Mass
Media

27.360 Mass Media Processes and Effects

27.420 Audience Analysis

Choose two from the following six courses:

27.334 Editing

27.340 Feature Writing

27.352 Publicity and Public Relations

27.366 Design in Advertising

27.371 Broadcast Journalism

27.440 Public Affairs Reporting

27.485 RTF Authorship Theory and Practice

Choose three from the following eleven courses:

27.251 PR Theory & Practice

27.261 Principles of Advertising

27.297 Mass Communications Practicum

27.367 TV Acting and Directing

27.375 Broadcast Programming and
Management

27.390 Film and Video Production

27.435 Journalism Workshop

27.446 Magazine Editing and Production

27.455 Public Relations Cases and Problems

27.466 Advertising Media and Campaigns

27.480 Telecommunications Workshop

Choose one from the following three courses:

274.20 Audience Analysis

27.482 Mass Communications Seminar

27.497 Internship

Faculty Profiles

Walter M. Brasch, professor - A.B., San Diego State University; M.A., Ball State University; Ph. D., Ohio University

Richard J. Ganahl III, chairperson, associate professor, Mass Communications - B.A., University of Missouri at St. Louis; B.J., M.A., Ph.D., University of Missouri at Columbia

William T. Green, associate professor, Mass Communications - A. B., Heidelberg College, M.A., Ph.D., University of Toledo

Maria Teresita G. Mendoza-Enright, associate professor, Mass Communications - B.A., M.A., University of the Philippines System; M.A., University of Chicago; Ph.D., University of Wisconsin-Madison

Jay Shotel, assistant professor, B.A., M.Ed., The Pennsylvania State University; Ph.D., Psychological Studies Institute

Dana R. Ulloth, professor, Mass Communications - B.A., Southern College; A.M., Ph.D., University of Missouri

MAT (53)**Mathematics**

**Administered by: Department of Mathematics, Computer
Science and Statistics**

College: College of Arts and Sciences

**Campus address: 1105 McCormick Center for Human
Services**

Telephone number: (570) 389-4500

Fax number: (570) 389-3599

**Department chair, e-mail: James C. Pomfret,
pomfret@bloomu.edu**

Degrees awarded: Bachelor of Arts, Bachelor of Science

About the Program

The primary objective of the mathematics program is to provide a thorough background in both the theoretical and real-world applications of mathematics. The curriculum and instructional strategies are designed to encourage and promote critical thinking and problem-solving skills, the articulation of mathematical ideas and the effective use of calculator and computer technology.

Bloomsburg's mathematics program enjoys a strong reputation in both business and the academic community and offers 100 percent placement rates in business and graduate programs. Among career paths chosen by mathematics majors are actuarial science, statistical analysis, operations research analysis, software engineering, industrial engineering, numerical analysis, cryptology, systems analysis, decision analysis and teaching.

Bloomsburg's program is rigorous and demanding. In addition to strong verbal skills, potential students with scores in excess of 500 on SATs are traditionally competitive, but those in excess of 600 generally do best.

The Department of Mathematics, Computer Science and Statistics offers three baccalaureate degree programs: Bachelor of Arts, Bachelor of

Science in Mathematics and Bachelor of Science in Computer Science (See section on Computer Science). In addition, the department offers the subject area curriculum supporting teacher certification in secondary education mathematics. The department also offers a minor in computer science, one in statistics and another in mathematics. Additionally, the department has a strong program in applied statistics that prepares students for interesting careers in data analysis, design of experiments and actuarial science.

The course sequence in all of the degree programs in mathematics is essentially the same through the first two years. The bachelor of arts program in mathematics offers a more flexible curriculum designed to accommodate varied career objectives while the bachelor of science program is specifically applications-oriented with more required courses in mathematical analysis and science. In the bachelor of science program, students select an area of concentration in their junior year to develop proficiency in an area of applied mathematics.

Many students choose a joint program in mathematics and computer science, mathematics and statistics, or mathematics and an area of business or physical sciences. A student majoring in education who chooses an area of concentration in mathematics essentially follows the bachelor of arts program in mathematics. The department strongly supports the implementation of mathematical and statistical software throughout all the mathematical programs. Students who complete a degree program in mathematics are prepared to continue their studies of mathematics on the graduate level or to enter industry in an area where mathematics is used.

For admission to the major in mathematics, a student should have a thorough preparation in high school mathematics. Students who complete the Advanced Placement Examination with a score of 3 or higher may earn university credit for the first calculus course, 53.125 Analysis I.

Required Courses

Advisement should be considered before selecting general education courses in this major.

Bachelor of Arts in Mathematics - Required courses:

- 53.125 Analysis I
- 53.126 Analysis II
- 53.185 Discrete Mathematics
- 53.225 Analysis III
- 53.226 Analysis IV
- 53.241 Probability and Statistics
- 53.310 Introduction to Abstract Algebra
- 53.314 Linear Algebra
- 56.121 Computer Science I

At least one 3-semester-hours computer science course numbered 56.122 or above.

At least three 3-semester-hours mathematics courses at the 300 level, including at least one from the classical core consisting of:

- 53.322 Differential Equations
- 53.331 Modern Geometry
- 53.341 Statistical Methods
- 53.360 Number Theory
- 53.411 Introduction to Group Theory
- 53.421 Advanced Calculus
- 53.422 Complex Variables
- 53.451 Introduction to Topology

In addition, at least 6 semester hours in a discipline to which mathematics is traditionally applied (as approved by the adviser). Courses 53.311 and 56.305 may not be counted as requirements for the major.

Bachelor of Science in Mathematics - A 9-semester-hours concentration in a special interest area within mathematics or in a related discipline; areas of concentration available upon request.

- 53.125 Analysis I
- 53.126 Analysis II
- 53.185 Discrete Mathematics
- 53.225 Analysis III
- 53.226 Analysis IV
- 53.241 Probability and Statistics
- 53.310 Introduction to Abstract Algebra
- 53.314 Linear Algebra

- 54.211 General Physics I
- 54.212 General Physics II
- 56.121 Computer Science I

At least one 3-semester-hours computer science course numbered 56.122 or above.

At least three 3-semester-hours mathematics courses at the 300 level including at least one from the classical core consisting of:

- 53.322 Differential Equations
- 53.331 Modern Geometry
- 53.341 Statistical Methods
- 53.360 Number Theory
- 53.411 Introduction to Group Theory
- 53.421 Advanced Calculus
- 53.422 Complex Variables
- 53.451 Introduction to Topology

Courses 53.311 and 56.305 may not be counted as requirements for the major.

Minor in Mathematics - The program requires 21 hours of mathematics courses. The quality point average of all courses applied to the minor in Mathematics must be at least 2.0 based on a 4.0 system.

Required courses are:

- 53.125 Analysis I
- 53.126 Analysis II
- 53.185 Discrete Mathematics
- 53.225 Analysis III

At least three courses (9 semester hours) chosen from the following list:

- 53.231 College Geometry
- 53.226 Analysis IV
- 53.310 Introduction to Abstract Algebra
- 53.314 Linear Algebra
- 53.322 Differential Equations
- 53.331 Modern Geometry
- 53.341 Statistical Methods
- 53.360 Number Theory
- 53.361 Coding and Signal Processing
- 53.381 Introduction to Operations Research
- 53.421 Advanced Calculus
- 53.422 Complex Variables
- 53.451 Introduction to Topology

Minor in Statistics - This program requires 18 semester hours of credit, at least 15 of which must be in the Department of Mathematics, Computer Science and Statistics. Students within the Department of Mathematics, Computer Science and Statistics may apply the following courses toward the minor:

- 53.341 Statistical Methods
- 53.342 Design and Analysis of Experiments
- 53.343 Applied Regression Analysis
- 53.461 Probability Models and Applications
- 53.462 Introduction to Mathematical Statistics
- 53.491 Special Topics in Mathematics

One course related to applications of statistics from other departments, with approval of adviser.

Students from departments other than mathematics and computer science may apply the following courses to the minor:

53.241 and courses listed above for students with the Department of Mathematics, Computer Science and Statistics; or select courses from the following list (select one of):

- 53.141 Introduction to Statistics
- 45.260 Basic Social Statistics
- 48.160 Basic Statistics
- 40.346 Business and Economic Statistics
- 53.123 Essentials of Calculus
- 53.125 Analysis I
- 53.342 Design and Analysis of Experiments
- 53.343 Applied Regression Analysis
- 53.491 Special Topics in Mathematics
- 53.492 Independent Study in Mathematics

Courses outside the department recommended for the minor are:

- 40.400 Introduction to Econometrics
- 40.446 Business and Economic Statistics II
- 48.464 Advanced Experimental Design
- 50.351 General Ecology
- 82.306 Methods of Inquiry
- 45.466 Social Research

Faculty Profiles

William Calhoun, assistant professor - B.A., Carleton College; Ph.D., University of California at Berkeley

Paul G. Hartung, professor - B.A., Montclair State College; M.A., University of Colorado; Ph.D., The Pennsylvania State University

E. Dennis Huthnance Jr., associate professor - B.S., M.S., Ph.D., Georgia Institute of Technology
 Scott Inch, associate professor - A.A., Williamsport Area Community College; B.S., Bloomsburg University; M.S., Ph.D., Virginia Polytechnic Institute and State University

Curt Jones, associate professor - B.S., Lock Haven; M.S., University of Iowa; Ph.D., The Pennsylvania State University

Zahira S. Kahn, associate professor - B.A., Punjab University; M.Sc., Islamabad University; B.S., Bloomsburg University; M.A., Ph.D., Temple University

Stephen Kokoska, professor - B.A., Boston College; M.S., Ph.D., University of New Hampshire

Lisa Lister, assistant professor - B.A., University of Maine Orono; M.S., Ph.D., University of Wyoming

Robert Montante, assistant professor - B.S., Massachusetts Institute of Technology; M.S., Ph.D., Indiana University, Bloomington

Reza Noubary, professor - B.S., M.S., Tehran University, M.Sc., Ph.D., University of Manchester, England

James C. Pomfret, chairperson, professor - B.S., Bates College; M.S., New Mexico State University; Ph.D., University of Oklahoma

Medhi Razzaghi, professor - G.C.E., Lewes Technical College; B.S., Sussex University; Ph.D., University of London

John H. Riley Jr., professor - B.A., Lehigh University; M.S., Ph.D., The University of Connecticut

Yixun Shi, associate professor - B.S., Anhui Normal University at Chuzhon, China; M.S., Shanghai Teachers University, China; Ph.D., University of Iowa

Erik Wynters, associate professor - B.S., University of New Hampshire; M.S., Ph.D., Cornell University

Medical Imaging

Administered by: Department of Biological and Allied Health
Sciences

College: Arts and Sciences

Campus address: 105 Hartline Science Center

Telephone number: (570) 389-4130

Fax number: (570) 389-3028

Program Coordinator: James E. Cole

Degree awarded: Bachelor of Science

Program advisers

James E. Cole, Casey A. Shonis

Affiliated website: <http://vesta.bloomu.edu/~biology/>

About the Program

Medical imagers are allied health professionals who have expertise in the operation of imaging equipment and the preparation of patients for various diagnostic procedures. These procedures may include competencies in radiography, nuclear medicine, sonography, radiation therapy, cardiovascular interventional radiography and cross sectional imagery. Additionally, many clinically educated radiographers pursue careers in managerial or teaching roles within their disciplines. To meet the varying needs of medical imagers, the program offers an assortment of academic pathways leading to a baccalaureate degree.

Bloomsburg offers a bachelor of science degree to those possessing certification in radiography/radiologic technology, to students who have completed the Radiology Technology Associate Degree at Mansfield University and to those students who have completed a unique program with the university and Johns Hopkins Hospital.

Most radiography students are required to select a group of courses comprising either a management or an education emphasis in addition to general education courses.

The Johns Hopkins Hospital Option provides the student with at least two clinical competencies that must be pursued at the Johns Hopkins Hospital in Baltimore, Md. The student selects two clinical competencies (radiologic technology, nuclear medicine technology, diagnostic medical sonography, nuclear medicine technology, cardiovascular interventional radiography and cross sectional imaging-MRI and CT) offered at JHH following the pre-clinical years at Bloomsburg University. Although the management and education emphases are not selected in this option, some additional courses are required.

The Mansfield University/Bloomsburg University association facilitates transfer from Mansfield's Associate Degree program in Radiology Technology to Bloomsburg's baccalaureate degree for medical imagers. After admission to Mansfield, an interested student signs a letter of intent to transfer to Bloomsburg at the time the Associate in Applied Science degree is completed.

The Office of Admissions at Bloomsburg reserves a place for the student as a junior year transfer student upon receipt of the student's letter of intent.

One year prior to matriculation at Bloomsburg, the student confirms the intent to enroll by completing the transfer admission application.

Bloomsburg accepts all 67 credits from Mansfield. A minimum of 61 additional semester hours of credit must be completed to be awarded the Bloomsburg University Bachelor of Science degree. Bloomsburg residency requirements must be observed.

Advisement. This program has the greatest number of allied health science students. The advisors guide students in the selection of courses, in

choosing the most appropriate academic pathway and in clinical placement. Clinical placement, however, is not automatic; generally, a GPA of at least 2.5 is required.

Admission. Students may enter the program as first-year freshmen or at an advanced level following clinical preparation in radiography. Students entering at the advanced level are awarded 20-60 credit hours for satisfactory completion of the AMA-approved program and passing the ARRT examination.

Bloomsburg's program is rigorous and demanding. It attracts individuals who have strong quantitative and people skills and great strength in reading comprehension. Students should be prepared to study in both academic and clinical environments and have a strong background in all the sciences.

Required Courses

In addition to 54 semester hours of general education requirements, the major requires several specific courses, plus options depending on whether the student prefers an emphasis in management, education or both. The balance of course work to satisfy the university's 128-hour requirement for a bachelor's degree come from elective courses. Students should work closely with their adviser to organize an efficient plan of study.

Professional Courses

- 50.110 Biology of Animals or equivalent
- 50.173 Anatomy and Physiology I
- 50.174 Anatomy and Physiology II
- 52.101 Introductory Chemistry
- 54.107 Applied Physics for Health Sciences
- 48.101 General Psychology
- 48.160 Basic Statistics or 53.141
Introduction to Statistics
- 56.110 Introduction to Computer Science
or 92.150 Introduction to
Computer and Information Science

Emphasis Courses - Select an emphasis in either management or education, both require a total of 15 semester hours in courses:

Management Emphasis

- 90.101 Introduction to Business
- 91.220 Financial Accounting
- 93.344 Principles of Management
- 93.345 Human Resource Management
- 91.498 Special Topics: Intro to Health Care

Education Emphasis

- 60.204 Educational Computing and
Technology
- 60.251 Psychological Foundations in
Education
- 60.291 Principles of Teaching
- 60.311 Classroom Measurement and
Evaluation
- 60.393 Social Foundations in Education

MDT (86)**Medical Technology**

Arts and Sciences

Administered by: Department of Biological and Allied Health
Sciences

College: Arts and Sciences

Campus address: 105 Hartline Science Center

Telephone number: (570) 389-4130

Fax number: (570) 389-3028

Program coordinator: James E. Cole

Degree awarded: Bachelor of Science

Program advisers: Judith P. Downing, Judith A. Kipe-Nolt,
James E. Parsons

Affiliated website: <http://vesta.bloomu.edu/~biology/>

About the Program

The programs in allied health sciences encompass those health areas in which individuals support, aid and increase the efficiency and effectiveness of other health professionals by becoming a contributing member of a health care team. Programs in this area combine natural science and liberal arts education with clinical instruction. In general, students who complete any of the programs may enter their professions immediately. Others may select postgraduate education in health care. Central to most allied health programs, especially the clinical portion, is satisfactory completion of the clinical standards, often referred to as the Essentials. These standards establish requirements related to curriculum, personnel, financing, resources and records.

Bloomsburg's medical technology program is one of the largest in the Commonwealth. The curriculum consists of a minimum of 96 semester hours of courses prescribed by the university, followed by one calendar year of clinical education in a medical technology program accredited nationally by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

Bloomsburg's program is rigorous and demanding. It attracts individual who have strong quantitative and people skills and great strength in reading comprehension. Students should be prepared to study in both an academic and clinical environment and have a strong background in all the sciences.

Advisement. Three faculty members serve as advisors to medical technology students-guiding them in their course selections and various other academic and professional activities.

Placement. In the past five years, the clinical placement rate for medical technology students has been 100 percent. It is anticipated that this high placement rate will continue in the foreseeable future.

Admission to the clinical year experience is not automatic. Students begin the application procedure after completing two academic years, usually the summer following the sophomore year.

Assistance in making application for admission is offered by the university, but admission is determined solely by the clinical affiliates. Presently, Bloomsburg is affiliated with nine hospitals; however, clinical experience may be taken at any hospital with an accredited program.

Students who are not selected at the end of their junior year can change their major and readily satisfy the requirements for the Bachelor of Arts in Biology during their senior year; other degree options are also available. Students may continue to seek admission for the clinical year while completing their degree.

Program of Study - As mentioned earlier, the medical technology program consists of a minimum of 96 semester hours of course work prescribed by the university, followed by one calendar

year of clinical education in a medical technology program.

Assistance with the admission application to the clinical year phase is offered by the university, but admission to that phase, as well as fees, are determined solely by the institution where the clinical work is done. The university cannot guarantee that a student will be accepted for the clinical education portion of the program. In general, students with the highest academic achievement, who interview well and have a history of volunteer work are given priority.

Students who successfully complete all of the requirements and the clinical year earn a Bachelor of Science degree. All clinical year graduates become eligible to take the two certification examinations for medical technologists. Upon successfully completing one or both of these examinations, the student is awarded a certificate of registry and the designation Medical Technologist (M.T.) (ASCP) or Clinical Laboratory Scientists (C.L.S.) (NCA).

A student who fails to gain admission to a clinical program at the end of the junior year (3+1 program) or wishes to complete a degree prior to entering the clinical experience may remain at the university and complete the requirements for a baccalaureate degree. Ordinarily, a student can complete the degree requirements for a Bachelor of Arts, with a major in biology, in one additional year; other curricula may demand more time. Many students in the medical technology program select an option in microbiology. This option is detailed in the section on Biology.

Required Courses

A minimum of 96 semester hours in general education requirements and professional education requirements and 32 clinical hours are required for a major in medical technology leading to a Bachelor of Science degree..

Professional Education Courses

- 50.107 Medical Terminology
- 50.110 Biology of Animals or 50.120 Biology of Plants
- 50.233 Human Genetics or 50.332 Genetics
- 50.242 Biology of Microorganisms
- 50.271 Cell Biology
- 50.342 Medical Bacteriology
- 50.343 Immunology
- 50.371 Principles of Mammalian Physiology or 50.475 Cell Physiology
- 52.115 Fundamentals of Inorganic Chemistry

- 52.131 Fundamentals of Organic Chemistry
- 52.216 Chemical Principles and Measurements
- 52.341 Biochemistry or 52.232 Intermediate Organic Chemistry
- 53.141 Introduction to Statistics
- 54.107 Applied Physics for Health Sciences
- 56.110 Introduction to Computer Science

Elective Courses - Students must select additional courses to complete the minimum program requirement of 96 semester hours. The following courses are recommended as electives:

- 50.364 Vertebrate Histology
- 50.442 Virology of Animals
- 50.455 Environmental Microbiology
- 50.470 Medical Parasitology

Clinical Experience - A total of 32 semester hours must be earned from the listing of courses in medical technology that are given at the clinical site.

Adjunct Faculty

- Abington Memorial Hospital, Abington, Pa.: Paul J. Cherney, M.D., Medical Adviser; Barbara J. Scheelje, M.T. (ASCP), Program Director
- Alleghany University Hospitals, Elkins Park, Pa.: Richard Rupkalvis, M.D., Medical Adviser, Phyllis Gotkin, Ph.D., M.T. (ASCP), Program Director
- Susquehanna Health System: Divine Providence Hospital, Williamsport, Pa.; William Lubble, M.D., Medical Adviser; Loretta A. Moffatt, M.T.(ASCP), Program Director
- Penn State/Geisinger Medical Center, Danville, Pa.: Peter J. Cera, M.D., Medical Adviser; Alvin Swartzentruber, M.T. (ASCP), Program Director
- Lancaster General Hospital, Lancaster, Pa.: James T. Eastman III, M.D., Medical Adviser; Nadine E. Gladfelter, M.T. (ASCP), Program Director
- Guthrie Medical Center: Robert Packer Hospital, Sayre, Pa.; Joseph J. King, M.D., Medical Adviser; Brian D. Spezialetti, M.S., M.T. (ASCP), Program Director
- Pennsylvania Hospital, Philadelphia, Pa.: Michael Warhol, M.D., Medical Director; Caryn Lennon, M.T. (ASCP), S.H., Program Director
- Scranton Medical Technology Consortium, Scranton, Pa.; Mary A. Meihof, M.D., Medical Adviser; Mary Gene Butler, M.S., M.T. (ASCP), Program Director
- York Hospital, York, Pa.: John Whiteley, M.D., Medical Adviser; Brenda L. Kile, M.A., M.T. (ASCP), Program Director

MUS (35)**Music**

Arts and Sciences

Administered by: Department of Music
 College: Arts and Sciences
 Campus address: 215 Haas Center for the Arts
 Telephone number: (570) 389-4284
 Fax: (570) 389-4289
 Department chair: Mark R. Jelinek
 Degree awarded: Bachelor of Arts

About the Program

The Bloomsburg University Department of Music offers three major tracks: music history, applied music and audio-video recording. Seven minor tracks of music include applied voice, applied instrumental, piano/organ, history and literature, theory, music skills and audio-video recording.

The degree program enables the major to concentrate in music while obtaining broad understanding in the liberal arts. Music minors choose a specialization of applied performance, music history or audio-video recording. In addition, majors develop applied music skills through courses in sight-singing, music theory and performing ensembles. The program affords students the opportunity through general education courses, to study other forms of artistic expression, such as theater and art, as well as selected subjects from other major academic disciplines.

Prospective students should initially contact the Office of Admissions regarding admissions procedures and indicate music background as requested in the admissions application. Upon acceptance by the university, students considering a music major should then contact the Department of Music for an interview and performance audition. Interviews and evaluation should occur before May 1. It is the prospective student's responsibility to initiate

arrangements for interviews and evaluation after notification of admission to allow sufficient time for preparation of the initial semester schedule.

Bloomsburg's degree in music is traditionally a non-teaching degree that stresses more broad-based areas of knowledge. Students find employment as private teachers of voice or instruments, serve as music resource consultants, are church organists and choir directors, become professional vocal-instrumental performers in a variety of settings, become music library assistants and consultants, are mass media contributors such as radio music programmers and recording specialists and are employed in many areas of the music and recording industry as arrangers, composers and computer music copyists.

The department also supports a music concentration for majors in Elementary Education.

Music scholarships and ensemble service stipends are awarded each year on the basis of contribution or potential individually or within one or more of the performing ensembles. Awards are not restricted to music majors or minors.

A full range of applied instruction is also available each summer in a concentrated but relaxed atmosphere during six-week sessions.

The department offers a high degree of individual attention with a faculty-to-student ratio of 3:1 to enhance understanding, proficiency and development. Facilities include faculty studios, rehearsal and practice rooms, classrooms, music libraries, a new innovative recording computer lab and two auditoriums. Students receive individual weekly instruction taught by faculty with personal experience and proficiency and participate in seven performing ensembles that include two bands, an orchestra and four choral groups. A full

calendar of public presentations is offered throughout the year for ensembles, recitals, special productions and staged works in conjunction with theatrical groups.

Required Courses

In addition to 54 semester hours of general education requirements, a minimum of 44 semester hours is required for a major in music. The balance of the university's 128-semester hour requirement for a baccalaureate degree comes from elective courses. All music majors are encouraged to select courses in related arts such as studio art, art history, theater production, mass communication and humanities disciplines among free electives.

Core courses for each track include:

Theory

- 35.201 Sight Singing
- 35.210 Music Theory I
- 35.211 Music Theory II
- 35.300 Music Theory III: Form and Analysis
- 35.301 Music Theory IV: Twentieth Century Practice
- 35.410 Music Theory V: Counterpoint
- 35.411 Music Theory VI: Orchestration

Ensemble participation - six semesters of the student's choice of vocal or instrumental ensemble, four at one credit per semester and two semesters minimum at zero credit.

- 35.106 Maroon and Gold Band (marching in fall, concert in spring)
- 35.107 University-Community Orchestra (chamber orchestra optional)
- 35.108 Concert Choir
- 35.109 Women's Choral Ensemble
- 35.110 Husky Singers (male chorus)
- 35.111 Chamber Singers
- 35.112 Studio Band

Music history

- 35.101 Music Listening
- 35.321 Music History to 1750
- 35.322 Music History-1750 to Present

Piano proficiency examination - All majors must exit with an acceptable level of keyboard proficiency. Course 35.302 Piano Proficiency may be elected and repeated to aid in the passage of the exam, but election of 35.302 may not be sufficient in itself to guarantee passage of the exam. See your advisor for details. Not required of audio-visual majors.

Three Major Tracks

I. Music History and Literature - 16 semester hours:

- 35.430 Seminar in Music History I
- 35.431 Seminar in Music History II
- 35.324 American Music
- 35.325 Opera and Music Theater
- 35.327 Survey of Popular Music
- 4 semester hours of applied instrument or voice study; need not be the same voice or instrument.

II. Applied Music (Performance) - Eight semesters of the same instrument or voice (two lessons per week for two credit hours per semester) for a total of 16 semester hours. Choices include violin, viola, violoncello, double bass organ, voice, piano, trumpet, horn, trombone, baritone, tuba, flute, oboe, clarinet, bassoon and saxophone.

Applied music concentrates must perform a recital in their junior and senior years at zero credit; a faculty committee before public presentation screens recital programs.

Instrumental majors are encouraged to elect acoustics, 54.105 The Science of Sound to meet the natural sciences general education requirement.

Additionally, voice students are required to take 16 hours of free electives from Languages and Cultures. Other course levels may be recommended instead as appropriate for demonstrated language proficiency.

- 16.109 Language for Singing
- 10.101 French I
- 10.102 French II
- 11.100 Foundations in German Language and Culture
- 11.101 German I
- 11.102 German II
- 14.101 Italian I

III. Audio-Video Recording - 44 semester hours (Early acceptance as a music major is necessary to complete the program in eight semesters):

Harmony/Theory:

- 35.210 Music Theory I
- 35.211 Music Theory II
- 35.411 Music Theory VI: Orchestration

Choose one of the following two courses:

- 35.300 Music Theory III: Form and Analysis
- 35.301 Music Theory IV: Twentieth Century Practice

Ear/Perception/Style:

35.101 Music Listening (general education requirement)

35.201 Sight Singing

35.322 Music History-1750 to Present

Choose from the following three courses

35.321 Music History to 1750

35.324 American Music

35.327 Survey of Popular Music

Applied Study: Piano - 4 semester hours (see adviser), plus three semesters of choice other than piano at one credit per semester. Can be piano, mixed with other areas.

Ensemble participation - six semesters of the student's choice of vocal or instrumental ensemble, four at one credit per semester and two semesters minimum at zero credit.

35.106 Maroon and Gold Band (marching in fall, concert in spring)

35.107 University-Community Orchestra (chamber orchestra optional)

35.108 Concert Choir

35.109 Women's Choral Ensemble

35.110 Husky Singers (male chorus)

35.111 Chamber Singers

35.112 Studio Band

Recording Specialization (audio, then video)

35.497 Internship I (basic workshop, summer after first year; a non-university fee required as well as credit cost)

35.497 Internship II (summer after second year; a non-university fee required as well as credit cost)

35.497 Internship III (summer after third year, zero credit)

35.497 Internship IV (fourth year on-location recording for the Department of Music, Mass Communications, Television/Radio Services and Auditorium Manager)

All Audio-Video majors are required to act as recording technicians for events sponsored by the Music Department as specified by the adviser. The requirement is for a minimum of three events each semester, with two acting as lead technician and one

as support

Seven Music Minors

The minor provides an emphasis in areas designated applied voice, applied instrumental music, applied keyboard, music history - literature, theory (harmony and application), music skills (general music development) and audio recording techniques.

The minor in music is a 22-semester hour emphasis that may be selected by students who major in a program other than the Bachelor of Arts in Music. The minor, which may be completed in 8 or fewer semesters, is built from Code 35 courses that include music theory, ear training, music history and style, applied study and performing ensembles.

All audio-video minors are required to act as recording technician for events sponsored by the Music Department as specified by the adviser. The requirement is for a minimum of three events each semester, with one acting as lead technician and two as support.

Faculty Profiles:

Alan L. Baker, assistant professor - B.M./B.M.Ed., Drury College; M.M., Temple University; D.M.A., Stanford University

Stephen Clickard, assistant professor - B.A., San Jose State University; M.M., University of Northern Colorado; C.M.A., University of Washington

James Douthit, assistant professor - B.M., Mars Hill College. M.M., Northwestern University; D.M.A., Eastman School of Music

Mark R. Jelinek, professor, Music - B.M.E., M.A., Eastern New Mexico University; D.M.A., Arizona State University

Wendy L. Miller, associate professor, Music - B.S., Bluffton College; M.M., D.Mus., Indiana University, Bloomington

Terry A. Oxley, associate professor, Music - B.M.E., University of Wisconsin, Eau Claire; M.M.E., University of Wisconsin, Stevens Point; D.A., University of Northern Colorado

W. Ann Stokes, associate professor, Music - B.Mus., M.Mus., University of North Carolina-Greensboro; Ph.D., Northwestern University

PHL (28)

Philosophy

Administered by: Department of Philosophy

College: Arts and Sciences

Campus address: 219 Bakeless Center for the Humanities

Telephone number: (570) 389-4246

Department chair: Scott Lowe

Degree awarded: Bachelor of Arts

Affiliated website: <http://www.bloomu.edu/departments/philosophy/pages/phildept.html>

About the Program

Philosophy is an activity concerned with reasoning about the deepest questions human beings have considered: Is there a God? Do we have free will? What is the relation between the mind and body? What is a just society? What is the nature of morality?

The questions the discipline addresses are as contemporary as the possibility of artificial intelligence and the ethics of cloning. However, philosophy also concerns itself with its own rich history. Philosophical figures from throughout the history of Western civilization, such as Plato, Aristotle, Descartes, Kant and Mill, remain an important part of the discipline's continuing dialog on major philosophical issues.

The Department of Philosophy offers a broad range of courses designed to provide both a general acquaintance with the issues and methods of philosophy as well as a solid foundation for advanced work in the discipline.

The department faculty also teach a number of courses in applied ethics: medical ethics, contemporary moral problems and business ethics. All courses examine the views of others about philosophical questions and critically look at and develop one's own beliefs that directly investigate thinking itself. The university offers both a major and a

minor in philosophy and also supports the university's liberal arts mission by including courses that satisfy various general education requirements (i.e., in the humanities division and in the area of values, ethics and responsible decision making).

In all of its courses, the faculty encourage students to develop their thinking skills, by engaging them with the best minds of the past and present, by challenging them to examine and to criticize the arguments of others and by leading them to question their own values and commitments.

Regardless of topic or level of difficulty, philosophy courses provide a unique opportunity to acquire and to practice a variety of valuable skills, such as the ability to solve problems, to communicate effectively and to assess the strength and cogency of opposing arguments and proposed plans of action.

Students often take several philosophy courses because they find the discussions so interesting and stimulating.

Career Opportunities - An obvious choice for a philosophy major is to complete a graduate degree and teach at the college level. Others have demonstrated a strong ability to score higher on graduate entrance examinations for business and law degrees than students from majors directly concerned with those disciplines.

For those who turn to careers in business and industry, a number of recent studies have suggested that employers want and reward many of the capacities that the study of philosophy develops. These include the ability to solve problems, to communicate and to organize ideas and issues and to assess the strength and cogency of arguments. Students who complete a major or a minor in philosophy are well prepared to pursue advanced work in

the discipline or to apply their philosophical skills in multiple career settings such as law, medicine, business or government.

Opportunities for Students - The Philosophy Club provides an opportunity for students, whether they are majors, minors or simply interested in philosophy, to meet with each other and with faculty members outside the classroom. The club sponsors guest speakers from on and off campus.

Independent study is available for students who wish to undertake intensive study of an area of philosophy or to pursue topics not normally covered within the program. Independent study permits personalized learning through one-on-one interaction with a faculty member.

An internship allows students to explore philosophical issues in a work setting, such as working with a medical ethics committee at a local hospital.

Required Courses

In addition to 54 semester hours of general education requirements, a total of 30 semester hours is required for a major in philosophy. The balance of the university's 128-hour requirement for a bachelor's degree comes from elective courses. The following courses are required:

Logic requirement - choose one of the following two courses:

28.270 Logic

28.271 Logic and Computing

Historical requirement

28.321 Plato and Aristotle

28.324 Descartes to Kant

Choose one of the following two courses:

28.328 Existentialism

28.329 20th Century Philosophy

Elective Courses - Six elective courses must also be selected in addition to the required courses for this degree program. Two courses must be from the 300 or above level sequence:

28.110 Critical Thinking

28.111 Introduction to Philosophy

28.220 Medical Ethics

28.292 Contemporary Moral Problems

28.295 Business Ethics

28.297 Ethics

28.403 Philosophy of Science

28.404 Philosophy of the Social Sciences

28.405 Philosophy of Law

28.406 Philosophy of Religion

28.407 Contemporary Political Philosophy

28.408 Feminist Philosophy

28.418 Contemporary Philosophy of Mind

28.419 Theory of Knowledge

28.453 Metaphysics

Requirements for the Minor - A total of 18 semester hours is required for a minor in philosophy. Required courses are:

28.111 Introduction to Philosophy

28.297 Ethics

Choose one of the following three courses:

28.270 Logic

28.110 Critical Thinking

28.213 Logic and Computing

Choose three elective courses, including one from:

28.321 Plato and Aristotle

28.324 Descartes to Kant

28.328 Existentialism

28.329 20th Century Philosophy

or one systematic course (a 400 level or above course)

Faculty Profiles:

Steven D. Hales, associate professor - B.A., Southwestern University; A.M., Ph.D., Brown University

Oliver J. Larmi, professor - A.B., Dartmouth College; Ph.D., University of Pennsylvania

Wendy Lee-Lampshire, associate professor - B.A., University of Colorado; Ph.D., Marquette University

Scott C. Lowe, chairperson, associate professor - B.A., College of William and Mary; M.A., Ph.D., University of Virginia

Kurt Smith, assistant professor - B.A., University of California at Irvine; M.A., Ph.D., Claremont Graduate University

PHY (54)**Physics**

Administered by: Department of Physics

College: Arts and Sciences

Campus address: 55 Hartline Science Center

Telephone number: (570) 389-4107

Fax number: (570) 389-3028

Department chair: P. James Moser

Degrees awarded: Bachelor of Arts, Bachelor of Science

About the Program

Physics is the fundamental science of the properties and interactions of matter and energy. Physics students study a great deal of mathematics in order to understand nature in mathematical terms. Also, they learn laboratory skills of designing experiments and applying instrumentation, such as, electronics circuits and optical instruments, to observe and measure natural phenomena.

The major in physics requires dedication. Successful students spend about 50 to 60 hours per week on academic studies. This includes time in classes and laboratories and about 30 to 40 hours in studying and preparing assignments. If you enjoy logic puzzles, such as mathematical word problems and you have a natural curiosity about how things work, then you will likely enjoy learning about physics. At Bloomsburg there are opportunities to study nuclear physics, astrophysics, applied physics and laser physics using state-of-the-art equipment.

The Bachelor of Science in Physics provides the student with knowledge and skills that are desired by a variety of industrial employers and some Bloomsburg physics graduates have followed careers in business where they attained leadership positions. Also, physics graduates are well prepared to succeed in graduate and professional schools. Some students have completed masters and doctorates in physics, engineering, medicine and law. In-

deed, physics graduates, equipped with sharp analytical skills and fundamental understanding of nature are sought by schools of medicine and law.

The Bachelor of Arts in Physics is more limited in scope than the Bachelor of Science degree. It is usually combined with an engineering degree through the engineering/liberal arts program offered by Bloomsburg University in cooperation with The Pennsylvania State University or Wilkes University (*see Engineering and Liberal Arts*).

The minor in Physics provides an introduction to the discipline for those students in other majors having a curiosity and a desire to learn more about physics. The Minor in Electronics provides a foundation in the design, construction and modification of electronics circuits for use in scientific investigations.

Additionally, the university offers a Bachelor of Science degree in Health Physics and a Bachelor of Science in Education with a concentration in physics (*see Secondary Education*).

Required Courses

In addition to 54 semester hours of general education requirements, the bachelor of arts program requires 54 semester hours and the bachelor of science program requires 71 semester hours for a major in physics.

Bachelor of Arts required courses include:

54.211 General Physics I

54.212 General Physics II

54.302 Mechanics: Dynamics

54.310 Modern Atomic Physics

54.314 Electricity and Magnetism

54.400 Advanced Physics Laboratory

12 semester hours chosen from other

physics courses numbered above 300

- 53.125 Analysis I
 53.126 Analysis II
 53.225 Analysis III
 53.322 Differential Equations
 56.116 Algorithmic Processes for Computers
 52.115 Fundamentals of Inorganic Chemistry
 52.216 Chemical Principles and Measurements

Bachelor of Science required courses include:

- 54.211 General Physics I
 54.212 General Physics II
 54.302 Mechanics: Dynamics
 54.310 Modern Atomic Physics
 54.314 Electricity and Magnetism
 54.315 Electronics
 54.318 Optics
 54.400 Advanced Physics Laboratory
 54.422 Thermodynamics
 54.450 Introduction to Quantum Mechanics
 12 semester hours chosen from other physics courses numbered above 300
 52.115 Fundamentals of Inorganic Chemistry
 52.216 Chemical Principles and Measurements
 53.125 Analysis I
 53.126 Analysis II
 53.225 Analysis III
 53.322 Differential Equations
 56.116 Algorithmic Processes for Computers
 3 semester hours chosen from the following three courses:

- 53.226 Analysis IV
 53.314 Linear Algebra
 56.373 Numerical Methods in Computing

Requirements for the Minor in Physics - A minimum of 18 semester hours is required, including the following:

- 54.211 General Physics I
 54.212 General Physics II
 54.310 Modern Atomic Physics
 Plus seven semester hours from upper-level physics courses (300 and higher)

Requirements for the Minor in Electronics - These courses must be taken in sequence:

- 54.211 General Physics I
 54.212 General Physics II
 54.315 Electronics
 54.316 Digital Electronics
 54.317 Computer Electronics

Faculty Profiles

- Christopher Bracikowski, assistant professor - B.S., University of Rochester; Ph.D., Georgia Institute of Technology
 Jack G. Couch, professor - B.A., Utah State University; M.A., Vanderbilt University; Ph.D., Texas A & M University
 Nathaniel Greene, assistant professor - B.S., Antioch College; M.A., Ph.D., Boston University
 Gunther L. Lange, assistant professor - B.S., Ph.D., The Ohio State University
 P. James Moser, chairperson, professor - B.S., M.S., Ph.D., The Pennsylvania State University
 Peter C. Stine, professor - B.A., Wesleyan University; Ph.D., The Pennsylvania State University

PLS (44)

Political Science

Arts and Sciences

Administered by: Department of Political Science**College: Arts and Sciences****Campus address: Bakeless Center for the Humanities****Telephone number: (570) 389-4422****Fax number: (570) 389-2094****Department chair: Gloria Cohen-Dion****Degree awarded: Bachelor of Arts**

About the Program

Political Science embraces the study of politics and government. This includes not only the study of national, state and local government, but also the study of all governments worldwide and the international relations among those governing bodies. Further, political science is concerned with ideas, concepts and theories about governments and the role of individuals organizations and the political parties within governmental systems.

A major in political science becomes a good foundation for a variety of fields, including law, government service, politics, journalism, mass communications, teaching, community service, planning and even private business. With the help of an adviser, students create concentrations that further expand opportunities for post-graduate careers and studies.

Some students use political science as a second major or a minor to complement majors in economics, mass communications, geography and English, while others are attracted to a political science emphasis in the comprehensive social studies program leading to a degree in secondary education.

Bloomsburg's program is challenging. Factors suggesting potential success for high school students include strong communication, reading and writing skills, an appreciation for social sciences and

a keen interest in governmental affairs and international relations.

The department offers courses in all the major fields of political science for students who wish to acquire a thorough understanding of the art, science, theories, processes and structures of governments and politics.

Introductory courses are designed for both majors and non-majors. The importance of government and politics (locally, nationally and internationally) clearly points to political science as a critical element in the liberal education of any university student.

Advanced courses are offered for students who wish to pursue in-depth study and specialized subject matter to serve as a foundation for careers in politics, law, public administration, community service, international relations, criminal justice, communications or teaching.

All courses attempt to develop the student's ability to read carefully, communicate effectively, think critically, analyze logically and research thoroughly. A balance is sought between abstract concepts on the one hand and concrete applications on the other. Field work and internships give students an opportunity to apply what they have learned in the classroom to the realities of everyday work.

Law Option - The legal studies option provides students interested in the law with an opportunity to explore legal problems and institutions, the content and processes of the law and the practice of law from both an academic and practical standpoint. It helps students who are considering law school, paralegal work, quasi-judicial or legislative research careers, as well as other specialized legal positions in business, politics, government service or social welfare or for graduate study.

The department also offers a *career concentration in Public Administration*, which prepares students for entry-level managerial positions in the public sector. This career concentration is interdisciplinary and students need not be political science majors to enroll. Contact Dr. Agbango for information at (570) 389-4516.

Required Courses

In addition to the 54 semester hours of general education requirements, a total of 30 semester hours is required for a major in political science; the balance of the university's 128-semester hour requirement for a bachelor's degree come from elective courses. Required courses total 12 semester hours and include the following four courses in political science:

- 44.120 United States Government
- 44.160 Nations, States and Governments
- 44.210 Introduction to Political Theory
- 44.280 Introduction to International Relations

Elective Courses: 18 semester hours in Political Science, 12 semester hours of which must be chosen from upper division courses, i.e., at the 300 level or above.

Requirements for Law option - a total of 30 semester hours is required for this option. In addition to the core courses above, 18 hours are taken from the following eight courses:

- 44.440 President and Congress
- 44.446 Constitutional Law I
- 44.447 Constitutional Law II
- 44.448 Judicial Process
- 44.452 State and Local Government
- 44.456 Public Policy

- 44.487 International Law and Organization
- 44.497 Internship in a legal or judicial setting (only 3 hours count toward the option)

Requirements for the career concentration in public administration - A total of 27 hours (nine courses) is required. A student must take one course in each of the following areas: organization theory, policy, social psychology, communication, computer science, statistics, personnel, budgeting and planning.

Requirements for the Minor - A total of 18 semester hours is required for a minor in political science. There is one required course: 44.160 Nations, States, Government. Students should consider building a minor around one the fields of political science; namely, American politics, comparative government, international politics, political theory and law.

Faculty Profiles

George Agbango, professor - Specialist Certificate (Geography), University of Cape Coast, Ghana; M.P.A., Atlanta University; Ph.D., Clark Atlanta University

Gloria T. Cohen-Dion, chairperson, assistant professor - B.S., M.P.A., Ph.D., Temple University

Richard L. Micheri, assistant professor - B.A., Fordham University; M.A., Columbia University

James W. Percy, associate professor - A.B., University of Pennsylvania; M.A., Rutgers University

Diana Zoelle, assistant professor - A.A.S., Butler County Community College, B.S., Slippery Rock University; M.P.A., University of Missouri; M.A., Ph.D., University of Maryland

PSY (48)**Psychology**

Administered by: Department of Psychology

College: Arts and Sciences

Campus address: 2103 McCormick Center for Human Services

Telephone number: (570) 389-4469

Department chair: Winona Cochran

Degree awarded: Bachelor of Arts

About the Program

The Department of Psychology provides a strong undergraduate program for psychology majors and minors and support courses for the university's general education curriculum. All classes for the major are taught by faculty who have earned doctorates in their specialty.

Students in the major are expected to demonstrate a firm grounding in basic statistics and in experimental methodology and research, thus allowing them to excel in advanced theory and content courses.

A degree in psychology from Bloomsburg University gives quality students an appropriate background for graduate study and research in all areas of the discipline. It also offers qualified students a broad range of career possibilities with the potential for employment in settings such as clinics, counseling centers, hospitals, community human service agencies, educational institutions, research organizations or businesses.

About half of Bloomsburg's graduates continue their education in graduate programs and the university enjoys a good placement reputation.

Factors suggesting a probability of success in the program for students considering Bloomsburg include strong reading, abstract thinking and analytical skills and a strong desire to understand fundamentals of behavior and behavioral change.

Required Courses

In addition to 54 semester hours of university general education requirements, the program of study in psychology requires a minimum of 36 semester hours from the courses specified below:

Freshman/Sophomore years: core courses (18 semester hours) (Note: 48.281 and 48.282 must be taken sequentially. A grade of C or higher is required in 48.101, 48.160 and 48.281.)

48.101 General Psychology

48.160 Basic Statistics

48.281 Experimental Psychology:
Methodology

48.282 Experimental Psychology:
Applications

Choose two from the following four
courses:

48.211 Child Psychology or 48.212
Adolescence

48.253 Social Psychology

48.311 Adulthood and Aging

Junior/Senior years - content courses (12 semester hours)

Choose two from the following three
courses:

48.360 Cognitive Psychology

48.375 Psychology of Learning

48.380 Behavioral Neuroscience

Choose one of the following two courses:

48.335 Abnormal Psychology

48.436 Theories of Personality

Choose one of the following seven courses:

48.321 Psychological Tests and

Measurements

48.340 Community Psychology

48.350 Psychology of Sex and Gender

48.356 Psychology of Motivation

48.451 Laboratory Training in Group Processes

48.453 Organizational Psychology

48.476 Principles of Behavior Modification

Senior year - capstone courses (6 semester hours) - select two courses from the following six courses:

48.341 Theory and Practice of Academic Psychology

48.401 History of Psychology

48.406 Psychology Seminar

48.464 Advanced Experimental Design

48.466 Independent Study in Psychology

48.497 Practicum in Psychology

Minor in Psychology - A minimum of 18 semester hours in psychology as specified:

48.101 General Psychology

48.281 Experimental Psychology:
Methodology

9 semester hours of Psychology courses, 6 of which must be at the 300 or 400 level.

Choose one from the following four courses:

48.160 Basic Statistics

40.346 Business and Economics Statistics

45.260 Basic Social Statistics

53.141 Introduction to Statistics

Faculty profiles

Eileen C. Astor-Stetson, professor - A.B., Douglass College-Rutgers University; Ph.D., Vanderbilt University

John S. Baird Jr., professor - B.A., University of Virginia; M.S., Ph.D., North Carolina State University

Brett L. Beck, professor - A.A., James H. Faulkner State Junior College; B.A., University of West Florida; Ph.D., University of Alabama

Kambon Camara, assistant professor - B.S., Florida A & M University; M.S., University of Wisconsin-Stout

Winona J. Cochran, professor - A.S., Dalton Junior College; B.S. University of Tennessee; M.S., Ph.D., University of Georgia

Steven L. Cohen, professor - B.A., Oakland University; Ph.D., University of Maine

James H. Dalton, Jr., professor, B.A., King College; M.A., Ph.D., University of Connecticut

Julie M. Kontos, associate professor - B.A., M.S., Ph.D., University of Georgia

L. Richard Larcom, associate professor - B.S., M.A., Ph.D., The Ohio State University

Marion G. Mason, associate professor - B.S., Southern Nazarene University; M.A., Ph.D., The Ohio State University

Alex J. Poplawsky, professor - B.S., University of Scranton; M.S., Ph.D., Ohio University

Alicia Redfern, assistant professor - B.A., Mercyhurst College; M.Ed., Ph.D., Temple University

Constance J. Schick, professor - B.B.A., Angelo State University; Ph.D., Texas Tech University

Joseph G. Tloczynski, associate professor - B.A., Bloomsburg State College; M.A., West Chester University; Ph.D., Lehigh University

John E. Waggoner, professor - B.A., Shippensburg State College; M.S., Ph.D., The Pennsylvania State University

SOC (45)**Social Welfare**

**Administered by: Department of Sociology, Social Welfare and
Criminal Justice**

College: Arts and Sciences

**Campus address: 2106 McCormick Center for Human
Services**

Telephone number: (570) 389-4237

Fax number: (570) 389-2019

Department chair: I. Sue Jackson

Degree awarded: Bachelor of Arts

About the Program

Designed to prepare students for beginning-level professional social work practice with individuals, families, groups organizations and communities, Bloomsburg's Social Welfare program includes a rigorous and demanding broad area of study on topics essential to gaining expertise in social work practice as well as related academic disciplines. The principal educational objective of the program is to prepare students for beginning generalist social work practice.

Because Bloomsburg's Social Welfare program is accredited by the Council on Social Welfare Education, graduates are eligible for licensing in states that have licensing at the baccalaureate level within the social work profession and potentially qualify for advanced standing status at colleges and universities that grant it.

All social welfare majors do two practicum experiences during their experience at Bloomsburg University. The first, an introductory practice experience, occurs early on in the curriculum and the second, an internship, typically takes place during the senior year. Students are placed in a variety of different social welfare systems with the goal being an orientation to the kinds of programs in which they seek to pursue a career. They include area

agencies on aging, children and youth services programs, day care programs, drug and alcohol programs, hospitals, mental health agencies, adult and juvenile probation programs, women's centers and voluntary organizations such as the Salvation Army and the YMCA.

Required Courses

In addition to 54 semester hours of general education requirements, a total of 46 to 54 semester hours is required for a major in social welfare. The balance of the university's 128-semester hour requirement for a bachelor's degree come from elective courses. For information about admission criteria and details on the course sequence, see Charles Laudermilch, director of the social welfare program. Required courses for this degree program include:

- 40.211 Principles of Economics
- 44.120 United States Government
- 45.133 Introduction to Social Work and Social Welfare
- 45.297 Introductory Practice Experience in Social Welfare
- 45.334 Social Work Practice with Individuals and Families
- 45.450 Social Work Practice with Small Groups
- 45.452 Social Work Practice With Organizations and Communities
- 45.453 Social Welfare Policy
- 45.497 Social Welfare Internship
- 45.498 Integrative Methods Seminar in Social Work and Social Welfare
- 45.211 Principles of Sociology
- 45.215 Racial and Ethnic Minority Groups
- 45.260 Basic Social Statistics

45.462 Sociological Theory
 45.466 Social Research
 48.101 General Psychology
 48.210 Life-Span Psychology
 One additional three credit course in
 psychology.
 50.101 General Biology I

Faculty Profiles

Christopher F. Armstrong, professor - B.A., Washington and Lee University; M.A., Ph.D., University of Pennsylvania
 Leo G. Barrile, professor - B.A., M.A., Ph.D., Boston College
 David E. Greenwald, associate professor - B.A., University of Pennsylvania; M.A., Ph.D., University of California at Berkeley
 James H. Huber, professor - B.S., Bloomsburg State College; M.A., University of Delaware; Ph.D., The Pennsylvania State University
 I. Sue Jackson, chairperson, professor - A.B., Lycoming College; M.S.S.W., Graduate School of Social Work, University of Texas; Ph.D., Bryn Mawr College

Charles W. Laudermilch, associate professor - B.A., Moravian College; M.S.W., Wayne State University
 Frank G. Lindenfeld, professor - B.A., Cornell University; M.A., Ph.D., Columbia University
 Martin L. Needleman, assistant professor - B.A., University of Texas at Austin; M.A., Ph.D., State University of New York at Buffalo
 Yvette J. Samson, assistant professor - B.A., Bowling Green University, M.A., Ph.D., University of California at Riverside
 Neal Slone, assistant professor - B.A., State University of New York at Albany; M.A., Ph.D., University of Washington
 Dale L. Sultzbaugh, associate professor - B.A., Gettysburg College; M.Div., Lutheran Theological Seminary; M.S.W., West Virginia University
 Anne K. Wilson, professor - B.A., Carleton College; M.S., University of Maryland; Ph.D., The Johns Hopkins University

SOC (45)**Sociology**

Administered by: Department of Sociology, Social Welfare and
Criminal Justice
College: Arts and Sciences
Campus address: 2106 McCormick Center for Human
Services
Telephone number: (570) 389-4237
Fax number: (570) 389-2094
Department chair: I. Sue Jackson
Degree awarded: Bachelor of Arts

About the Program

Students majoring in sociology have the choice of either majoring in sociology or doing an option in applied sociology.

Sociology is a great major for students who are excited about studying society and its various components of communities, institutions and other structured groups. Students who major in this area have begun careers in many diverse fields, including classical sociology as well as sales, fashion merchandising, industry, stock brokerages, computer programming, insurance, research and social welfare.

Because of the abstract nature of the subject matter, students must have very good study habits to do well in this discipline. Beyond taking the four required core courses listed below, students have considerable flexibility in the courses they select; of the eight additional sociology courses required, four must be at 300 or 400 level, excluding internship.

Internships are optional within the major, but those interested in field experience will work with their adviser to choose one that helps fulfill learning goals.

Applied Sociology is an exceptional option for those who want actual experience "doing sociol-

ogy" while taking courses. All students entering the applied sociology option must do an internship for between six and 15 semester hours, most of which are with nonprofit voluntary and community-based organizations, while others are with government agencies. Internships often create links for future employment.

Required Courses

In addition to 54 semester hours of general education requirements, a total of 36 semester hours is required for a major in sociology. The balance of the university's 128-semester hour requirement for a bachelor's degree comes from elective courses.

Core courses:

- 45.211 Principles of Sociology
- 45.255 Research Methods for Social Inquiry
- 45.260 Basic Social Statistics
- 45.462 Sociological Theory

Sociology Major - Students also must select eight additional courses, 24 semester hours, from Sociology courses; four of these must be drawn from 300 and 400 level courses. The sociology internship and social work courses may not be counted as part of these eight courses.

Applied Sociology option

- 45.211 Principles of Sociology
- 45.255 Research Methods for Social Inquiry
- 45.260 Basic Social Statistics
- 45.462 Sociological Theory
- 45.316 Urban Sociology
- 45.461 Social Problems of Urban/Rural Communities

Choose three from the following six courses:

- 45.213 Contemporary Social Problems
- 45.490 Sociology of Aging

- 45.345 Medical Sociology
- 45.465 Computer Applications
- 45.468 Social Service Planning
- 45.441 Social Indicators

Three additional courses within the department, one of which must be a sociology course

An internship (6-15 semester hours)

Faculty Profiles

- Christopher F. Armstrong, professor - B.A., Washington and Lee University; M.A., Ph.D., University of Pennsylvania
- Leo G. Barrile, professor - B.A., M.A., Ph.D., Boston College
- David E. Greenwald, associate professor - B.A., University of Pennsylvania; M.A., Ph.D., University of California at Berkeley
- James H. Huber, professor - B.S., Bloomsburg State College; M.A., University of Delaware; Ph.D., The Pennsylvania State University
- I. Sue Jackson, chairperson, professor - A.B., Lycoming College; M.S.S.W., Graduate School

of Social Work, University of Texas; Ph.D., Bryn Mawr College

Charles W. Laudermilch, associate professor - B.A., Moravian College; M.S.W., Wayne State University

Frank G. Lindenfeld, professor - B.A., Cornell University; M.A., Ph.D., Columbia University

Martin L. Needleman, assistant professor - B.A., University of Texas at Austin; M.A., Ph.D., State University of New York at Buffalo

Yvette J. Samson, assistant professor - B.A., Bowling Green University, M.A., Ph.D., University of California at Riverside

Neal Slone, assistant professor - B.A., State University of New York at Albany; M.A., Ph.D., University of Washington

Dale L. Sultzbaugh, associate professor - B.A., Gettysburg College; M.Div., Lutheran Theological Seminary; M.S.W., West Virginia University

Anne K. Wilson, professor - B.A., Carleton College; M.S., University of Maryland; Ph.D., The Johns Hopkins University

THE (26)**Theatre Arts**

Administered by: Department of Communication Studies and
Theatre Arts

College: Arts and Sciences

Campus address: 1103 McCormick Center for Human
Services

Telephone number: (570) 389-4184

Fax number: (570) 389-3516

Department chair: Howard Schreier

Degree awarded: Bachelor of Arts

Affiliated website: <http://vesta.bloomu.edu/~csta>

About the Program

The division of theatre arts is committed to providing a strong undergraduate program for its majors and minors in the study and practice of theatre, to supporting the university's general education curriculum and to enhance the cultural life of the campus community. All courses are taught by professionals in the field.

Students in the major are expected to demonstrate a working knowledge of historical and contemporary theories and practices in dramatic literature, design and performance. A degree in theatre arts provides successful students with a solid background for achievement in graduate studies and career possibilities as performers, artists, managers and technicians in professional theatre and related fields such as film and television.

Typical career opportunities for theatre majors are performing artist, scenic designer, costume designer, lighting designer, script writer and stage manager.

A bachelor of science in education with a concentration on theatre is also available.

The Bloomsburg Players - The Bloomsburg Players is the theatre division's cocurricular producing and support organization. Membership includes

majors and minors: students with professional ambition as well as those who share a love of the art and process as an avocation.

Required Courses

Recommended among 54 semester hours of general education courses are:

30.101 Introduction to Art

35.101 Music Listening

Requirements for the Major - A total of 42 semester hours is required for a major in theatre arts, including 27 semester hours in required courses.

Courses include:

26.102 Introduction to Theatre Arts

26.108 Theatre Practicum (must be taken
for a total of 6 semesters)

Choose one of the following two courses:

26.112 Fundamentals of Acting

26.316 Play Directing

Choose one of the following two courses:

26.211 Theatre Production/Stagecraft

26.345 Costume Construction

26.215 History of the Theatre

26.321 Theatre and Stage Management

26.341 Fundamentals of Theatre Design

26.416 Modern Theatre

26.490 Seminar: Theatre (a seminar in script
analysis)

When students acquire junior standing, they must declare an emphasis area. Emphasis areas include performance, design technology or general:

Performance - 15 semester hours. Choose the course not previously taken from the required course listing:

26.112 Fundamentals of Acting

26.316 Play Directing

26.200 Experimental Movement

- 26.451 Advanced Acting
- 26.490 Seminar: Theatre (a seminar in stage make-up and a seminar in advanced scene study)

Design Technology - 15 semester hours. Choose the course not previously taken from the required course listing:

- 26.211 Theatre Production/Stagecraft
- 26.345 Costume Construction
- 26.251 Theory of Stage Lighting and Design
- 26.311 Scene Design
- 26.414 Costuming for the Stage
- 26.490 Seminar: Theatre (a seminar in technical problems).

General - 15 semester hours. Choose the course not previously taken from the required course listing:

- 26.112 Fundamentals of Acting
- 26.316 Play Directing

Choose the course not previously taken from the required course listing:

- 26.211 Theatre Production/Stagecraft
- 26.345 Costume Construction
- 26.219 Children's Theatre

Choose one course each selected from the Performance and Design Technology emphasis areas.

Faculty Profiles

Karen Anselm, professor, - B.A., University of Pittsburgh; M.F.A., Carnegie Mellon University

Bruce Candlish, assistant professor - B.A., San Jose State college; M.F.A., The Pennsylvania State University

Michael Collins, associate professor - B.A., Northeast Missouri State University; M.F.A. Purdue University

E. Ross Genzel, assistant professor - B.A., Concordia Teachers College; M.A., Northwestern University; M.F.A., George Washington University

College of Business

David Long
Dean, College of Business

The College of Business offers undergraduate and graduate programs in business administration and business education. The college is pursuing accreditation by the American Assembly of Collegiate Schools of Business. Within the Eastern Pennsylvania region, the college provides the opportunity for a business education recognized by stakeholders for its quality. The primary objective of the college is teaching, particularly development of students' quantitative/analytical reasoning skills. Members of the faculty serve as consultants, researchers and educators in both the public and private sectors.

Students enrolled in other colleges within the university who wish to transfer to a business curriculum must have completed a minimum of 15 semester hours at Bloomsburg to be eligible for consideration. In addition, a minor in business administration is available to students in other colleges.

The college is committed to the incorporation of technology into the curriculum. Each full-time faculty member's office has been equipped with an appropriate microcomputer. General purpose classrooms with computer projection capabilities, an electronic commerce laboratory and a common access microcomputer laboratory are in operation in Sutliff Hall and are subject to recurring update and renovation. A local area network interconnects faculty and administrative offices, classrooms and laboratories and links to other computer facilities on campus. Through the State System of Higher Education Network, faculty, students and staff have access to the Internet linking them to local, regional, national and international networks. Uni-

form application software (word processing, database, spreadsheets and presentation), multimedia and decision support software are maintained.

Business Honors Program

The College of Business provides superior students an opportunity to participate in an honors program during their junior and senior years. Eligibility is limited to students with a minimum GPA of 3.40 for coursework in the freshman and sophomore years in their business courses (core, major and business electives) or a 3.50 GPA overall if their GPA in their business courses is between 3.25 and 3.40.

Career Concentration

The College of Business offers a career concentration in International Business. This concentration provides students with the necessary skills and knowledge to operate in a global economy. The concentration includes a core of international business administration courses, accompanied by interdisciplinary courses with an international emphasis. A language proficiency is a requirement of the concentration.

Academic Departments

The College of Business is composed of six academic departments: Department of Accounting, Department of Business Education and Office Information Systems, Department of Computer and Information Systems, Department of Finance and Business Law, Department of Management and Department of Marketing

Programs and Specialization

Business Administration: Bachelor of Science in Business Administration, Specializations in: Accounting, Business Economics, Finance, Management Information Systems, Management and Marketing.

Business Education: Bachelor of Science in Education, Certification in: Accounting, Data Processing, Marketing and Office Information Systems (required for all majors)

Computer and Information Systems: Bachelor of Science in Computer and Information Systems.

ACC (91)**Accounting**

**Administered by: Department of Accounting
College: Business**

Campus address: 219 Sutliff Hall

Telephone: (570) 389-4755

Fax number: (570) 389-3892

**Department chair, e-mail: Nancy Coulmas,
ncoulmas@husky.bloomu.edu**

**Degree awarded: Bachelor of Science in Business
Administration**

About the Program

The accounting program's curriculum is tailored to address the demands confronted by today's professional accountant. Students learn how to accumulate and summarize information, to analyze and interpret results and to present information that often becomes key to decision making.

The program emphasizes the importance of communication skills, both written and oral, because successful accountants spend more time working with people than with numbers and more time helping others to reach decisions than tabulating figures.

Students in accounting work extensively in computer laboratories with Windows-based microcomputer applications. Students are expected to cultivate a level of proficiency in the general use of computer software programs dealing with database management, electronic spreadsheets and word processing.

While approximately one-half of the students entering this program have completed an accounting course in high school, prior exposure to accountancy is not required for admission. The first accounting course, Principles of Accounting I, introduces the accounting cycle and presumes no prior knowledge of the discipline. At least one year

of algebra and a solid academic background are the best preparation for entrance into this business specialty.

The department offers 18 courses in accounting plus the opportunity for an internship experience designed to provide upper-division students with the opportunity to gain valuable hands-on experience in the business community.

Many graduates become certified public accountants (CPAs), join corporations or enroll in graduate school, including the master of science in accounting program at Bloomsburg University. The department enjoys a nearly 100 percent job placement rate for the past 10 years. Five of the world's six leading accounting firms, along with many public and private organizations, recruit at Bloomsburg.

The College of Business has two student computer labs that are dedicated to serving business students. Among other services, both labs provide stand-alone software, network software and direct access to the Harvey A. Andruss Library, electronic mail and the Internet. Students also have complete access to all campus computer facilities via modem or fiberoptic link from residence halls.

The accounting department includes 10 faculty, nine of whom have doctoral degrees and eight of whom are CPAs. Collectively, they possess diverse work experience in public and private accounting with major companies and small businesses, government agencies and not-for-profit organizations.

Required Courses

Among 65 semester hours of general education courses, students must take:

20.101 Composition I

20.201 Composition II

- 25.103 Public Speaking
- 40.211 Principles of Economics I
- 40.212 Principles of Economics II
- 40.246 Business and Economic Mathematics
(or 53.123 Essentials of Calculus)
- 40.346 Business and Economics Statistics
- 53.118 Applied Matrix Algebra

Requirements for the Major - A total of 63 semester hours is required for a major in accounting under the business administration degree program. Required courses include:

Business Core Curriculum (27 semester hours):

- 91.221 Principles of Accounting I
- 91.223 Managerial Accounting
- 92.150 Introduction to Computer and
Information Science
- 93.344 Principles of Management
- 93.481 Business Policies and Strategies
- 96.313 Introduction to Corporate Finance
- 97.310 Marketing: Principles and Practice
- 98.331 Business Law I

Accounting Requirements (24 semester hours):

- 91.222 Principles of Accounting II
- 91.321 Intermediate Accounting I
- 91.322 Intermediate Accounting II
- 91.323 Intermediate Accounting III
- 91.324 Federal Tax Accounting
- 91.342 Auditing Theory and Procedure
- 91.348 Cost Accounting
- 98.332 Business Law II

Accounting Electives - (6 credits) must be 400-level accounting courses not to include 91.432 Accounting Internship or 91.498 Introduction to Health Care.

Elective Courses - Three courses (9 credit hours) are required in upper-level business or economics courses. Most accounting students complete a six-credit internship (91.432) to fulfill this part of the requirement.

When selecting an elective, students should be sure they have proper prerequisites and avoid elective courses below that level for which the student has already been prepared in that subject field. Courses designated with a 40, 90, 91, 92, 93, 94, 96, 97 or 98 prefix are considered business or economics electives.

General education electives - Select a minimum of 11 semester hours in non-business elective courses. Note: Graduation requires successful completion of a total of 128 semester hours.

Requirements for the Minor - A minor in accounting provides students in disciplines outside of the College of Business with a broad background in accounting and its functional areas. The minor is designed so students can have the background necessary to apply their major discipline in the business environment. The minor consists of 18 semester hours, 12 of which must be taken at Bloomsburg University. The following courses are required:

- 91.220 Financial Accounting
 - 91.223 Managerial Accounting
 - 91.321 Intermediate Accounting I
 - 91.322 Intermediate Accounting II
- Choose two of the following three courses:
- 91.324 Tax Accounting
 - 91.342 Auditing
 - 91.348 Cost Accounting

Faculty Profiles

Richard L. Baker, professor - B.S., M.B.A., Bloomsburg State College; Ph.D., The Pennsylvania State University; C.P.A., C.M.A., C.I.A

William E. Bealing, Jr. - B.S.B.A., Shippensburg University of Pennsylvania, M.B.A., University of Montana; Ph.D., The Pennsylvania State University; C.P.A.

Michael C. Blue, associate professor - B.S., University of Wisconsin; M.S.B.A., Boston University; M.S., University of Wisconsin; Ph.D., University of Idaho, C.P.A., C.G.F.M.

Nancy Coulmas, chairperson, associate professor - B.S., New York Institute of Technology; M.B.A., St. Bonaventure University; Ph.D., The Pennsylvania State University

Dennis B. K. Hwang, professor - B.A., Chengchi University; M.A., Ph.D., University of Oklahoma; C.P.A., C.M.A.

Richard E. McClellan, assistant professor - B.S., M.Ed., Bloomsburg State College; M.S.B.A., Bucknell University; C.P.A.

John Rude, associate professor - B.B.A., M.A., Western Illinois University; Ph.D., Kent State University, C.P.A.

Michael Shapeero, associate professor - B.S., M.B.A., California State University; Ph.D., Virginia Polytechnic Institute and State University, C.P.A., C.M.A.

FIN (96)

Business Administration and Economics

Administered by: Department of Finance and Business Law

College: Business

Campus address: 223 Suttill Hall

Telephone number: (570) 389-4560

Fax number: (570) 389-3892

Department chair: David G. Martin

Degree awarded: Bachelor of Science in Business
Administration

About the Program

The major in business administration-economics provides a perspective of the domestic and international economic system on the Macro and Micro levels and the influence it exerts on the decision-making process of financial markets and institutions. This major provides students with educational opportunities that prepare them for careers in the domestic and international fields.

Required Courses

In addition to 68 semester hours of general education requirements, the program in business administration and economics requires 24 hours of core business courses, 18 hours of courses specific to finance and business law, plus 18 hours of business electives to meet the university requirement of 128 hours for a bachelor's degree.

Among general education courses specifically required are:

- 20.101 English Composition I
- 20.102 English Composition II (or 20.104 Honors Composition)
- 25.103 Public Speaking
- 40.211 Principles of Economics I
- 40.212 Principles of Economics II
- 53.118 Applied Matrix Algebra
- 40.346 Business and Economics Statistics

Choose one of the following two courses:

40.246 Business and Economics

Mathematics

53.123 Essentials of Calculus

Business Core:

91.220 Financial Accounting

91.223 Managerial Accounting

92.150 Introduction to Computer and
Information Science

93.344 Principles of Management

93.446 Business Policies and Strategies

96.313 Introduction to Corporate Finance

97.310 Marketing: Principles and Practice

98.331 Introduction to Law and Legal
Environments

Business Administration and Economics Specialization

40.311 Intermediate Micro-Theory and
Managerial Economics

40.312 Intermediate Macroeconomic
Theory

40.313 Labor Economics

Choose one of the following two courses:

40.422 Contrasting Economics

40.423 History of Economic Thought
One Economics elective

One Business elective

Electives - Students must choose 18 semester hours in elective courses from General Business, Accounting, Computer and Information Systems, Management, Office Systems, Finance, Marketing and Business Law. Some additional courses are avail-

able as well; students should consult their adviser.

Faculty Profiles

Karen J. Elwell, associate professor - A.B., A.M., J.D.,
University of Illinois at Urbana-Champaign

David G. Heskell, associate professor - M.B.A.,
Ph.D., University of Business, Vienna, Austria

David G. Martin, associate professor - B.A., C. W.
Post College; M.B.A., Western Illinois University;
Ph.D., Saint Louis University

Bruce L. Rockwood, professor - B.A., Swarthmore
College; J.D., University of Chicago Law School

BUS (90)

Business Education

Administered by: Department of Business Education and
Office Information Systems

College: Business

Campus address: 217 Sutliff Hall

Telephone number: (570) 389-4756

Fax number: (570) 389-3892

Department chair: Donna Cochrane

Degree awarded: Bachelor of Science in Education

About the Program

The business education curriculum provides specialized knowledge and skills to prepare graduates for certification for secondary teaching, positions as training managers for business and government and advanced study in business education and related fields.

Admission to Teacher Education - Students who are admitted as business education majors must apply for acceptance into teacher education upon completion of 65 or more semester hours. For information about admission to teacher education, contact one of the department faculty.

Required Courses

In addition to a total of 54 semester hours of general education requirements, the following general education courses are required with a grade of C or better:

- 20.101 Composition I
- 20.201 Composition II
- 25.103 Public Speaking
- 40.211 Principles of Economics I
- 40.212 Principles of Economics II
- 48.101 General Psychology
- 70.101 Introduction to the Exceptional Individual

Choose from one of the following two:

48.160 Basic Statistics

53.141 Introduction to Statistics

Business Education Core

90.101 Introduction to Business

90.333 Business Communications and
Report Writing

91.221 Principles of Accounting I

92.150 Introduction to Computer and
Information Science

94.221 Office Systems Concepts

94.405 Training and Development in Office
Systems

98.331 Introduction to Law and Legal
Elements

Requirements for the Major - A total of 74 semester hours is required for a major in business education. The student must have completed the following courses with a grade of C or better to be considered for certification as a teacher of business subjects:

60.201 Field Studies in Education

65.374 Teaching Reading in Academic
Subjects

90.402 Methods of Teaching Business
Education

90.403 Business Education Field Experience

90.404 Professional Semester in Business
Education

90.406 Clinical Studies in Business
Education

Choose one of the following two courses:

60.251 Psychological Foundations of
Education

48.251 Psychological Foundations of
Education

Choose one of the following two courses:

60.393 Social Foundations of Education

60.406 Multicultural Education

Areas of Certification - Upon completion of the curriculum, receipt of a recommendation from the university and successfully passing the National Teachers Examination, the graduate will be issued an Instructional Level I Certificate by the Pennsylvania Department of Education. Every certification indicates at least two certification areas of which Office Technologies is always one.

Students must complete each course in the certification area with a grade of C or better. Areas of certification in business education include:

Accounting

91.222 Principles of Accounting II

91.223 Managerial Accounting

Accounting elective

Data Processing

92.177 Structured Programming
Methodology

92.254 Management Information Systems
Computer and Information Systems elective

Marketing

90.341 Principles of Selling

97.310 Marketing: Principles and Practice
Marketing elective

Office Technologies - This certification area is required for all business education majors

94.302 Business Document Generation

94.330 Telecommunications

94.407 Information and Office Environment
Management

300- or 400-level business elective with
advisor approval

Elective Courses - Students must choose at least 3 semester hours from:

90.341 Principles of Selling

Faculty Profiles

Donna J. Cochrane, chairperson, professor - A.A.S., Dutchess Community College; B.S., M.S., State University of New York at Albany; Ed.D., Temple University

Nancy A. Dittman, associate professor - B.S., Florida State University; M.Ed., University of Florida; Ed.D., University of Colorado

Dennis O. Gehris, associate professor - B.S., M.A., Rider College; Ed.D., Temple University

Janice C. Keil, associate professor - B.S., M.Ed., Bloomsburg University of Pennsylvania; Ed.D., Temple University

John J. Olivo, professor - B.S., Davis and Elkins College; M.Ed., Trenton State College; Ph.D., Michigan State University

CIS (92)**Computer and Information Systems**

**Administered by: Department of Computer and Information
Systems**

College: Business

Campus address: 224 Sutliff Hall

Telephone number: (570) 389-4560

Fax number: (570) 389-2071

Department chair: James S. Dutt

Degree awarded: Bachelor of Science

About the Program

The Department of Computer and Information Systems in the College of Business offers two baccalaureate degree programs: Computer and Information Science (CIS) and Management Information Systems (MIS).

While both programs involve learning how to develop information systems for the business environment, they differ significantly in emphasis. (For information on the Management Information Systems program, see the section on Management Information Systems.)

The CIS curriculum prepares students in the development, operation and maintenance of computer-based information systems for the business environment. The program's focus centers on commercial software and hardware with an emphasis on problem solving, system analysis and design, data management, data communications and software development within a commercial context.

CIS has a strong technical emphasis. While students are required to take courses in economics, accounting and other areas of business, the majority of the required coursework is in computer and information science. Students work in a variety of environments including networked micro-computers and workstations, multiuser minicomputers and mainframes. The program prepares business stu-

dents for positions such as: application programmer, programmer-analyst, systems analyst, data base administrator and information specialist.

Students enrolled in this program enjoy use of a dedicated computer lab with current technology on a mainframe computer of sufficient size to operate a medium-sized corporation.

Graduates enjoy an extremely high placement rate in a field where demand for professionals is high and the future remains quite bright. Students have access to a dedicated and state-of-the-art computer lab including a workstations and a mainframe capable of running a medium-sized corporation.

Required Courses

Bloomsburg University requires 54 semester hours in general education requirements and 128 semester hours to receive a baccalaureate degree. Computer and Information Systems majors must take 63 semester hours of specific courses and restricted electives and the balance of courses to meet the 128-hour requirement come from electives. Required courses include:

- 20.101 English Composition I
- 20.201 English Composition II (or 20.104 Honors Composition)
- 25.103 Public Speaking
- 53.141 Introduction to Statistics or
53.241 Probability and Statistics
- 40.211 Principles of Economics I
- 40.212 Principles of Economics II
- Choose one of the following two combinations:
- 53.123 Essentials of Calculus and 52.118 Applied Matrix Algebra **or**
- 53.125 Analysis I and 53.126 Analysis II
- 91.221 Principles of Accounting I

- 91.222 Principles of Accounting II
- 92.177 Structured Programming Methodology
- 92.252 Business Oriented Programming
- 92.256 Data and Information Structures
- 92.350 Analytic Computing Concepts
- 92.351 Systems Analysis and Design
- 92.352 Advanced Programming
- 92.354 Data Base Processing Systems
- 92.452 Advanced Software Development

Elective Courses

Select 15 semester hours from the following, 12 of which must be CIS courses and nine semester hours must be at the 300 or 400 level.

- 92.150 Introduction to Computer and Information Systems
- 92.251 Mini/Micro Programming Systems
- 92.254 Management Information Systems
- 92.356 Operating Systems
- 92.358 Data Communication Systems
- 92.450 Expert Systems and AI
- 92.456 Managerial Computer Applications
- 92.498 Special Topics
- 56.121 Computer Science I
- 56.116 Algorithmic Processes
- 56.240 Microcomputer Concepts
- 53.374 Discrete Systems Simulation
- 53.381 Introduction to Operation Research

While an internship in CIS is not required for a degree, students are strongly encouraged to take

92.432 Internship in Computer and Information Systems. This course, which may be taken for a maximum of six semester hours, can be counted only as a free elective.

Faculty Profiles

Patricia M. Boyne, assistant professor, Computer and Information Systems - B.A., Ladycliff College; M.S., The Pennsylvania State University; CDP

Carl J. Chimi, associate professor, Computer and Information Systems - B.A., M.B.A., Ph.D., University of Massachusetts

Frank S. Davis Jr., professor, Computer and Information Systems - B.S., M.Ed., Shippensburg University; Ph.D., University of Pittsburgh

James S. Dutt, chairperson, associate professor, Computer and Information Systems - B.S., M.S., Ph.D., The Pennsylvania State University

Harold K. Frey, associate professor, Computer and Information Systems - B.S., Lock Haven University; M.A., Iowa State University; M.S., Elmira College

Gene M. Gordon, associate professor, Computer and Information Systems - B.A., Southampton College; M.A., Antioch University; Ed.D., University of Massachusetts

Charles J. Hoppel, associate professor, Computer and Information Systems - B.S., University of Scranton; M.E.E., Ph.D., Syracuse University

BSL (98)**Finance**

Administered by: Department of Finance and Business Law

College: Business

Campus address: 223 Sutliff Hall

Telephone number: (570) 389-4560

Fax number: (570) 389-3892

Department chair: David G. Martin

Degree awarded: Bachelor of Science in Business
Administration

About the Program

The major in finance provides a perspective of the finance environment such as the functioning of major stocks and bonds markets, the banking system and international financial markets. It will provide students with educational opportunities that will prepare them to pursue careers in the domestic as well as international financial fields.

Required Courses

In addition to 68 semester hours of general education requirements, the program in finance requires 24 hours of core business courses, 15 hours of courses specific to finance, plus 21 hours of business electives to meet the university requirement of 128 hours for a bachelor's degree.

Among general education courses specifically required are:

- 20.101 English Composition I
- 20.102 English Composition II (or 20.104 Honors Composition)
- 25.103 Public Speaking
- 40.211 Principles of Economics I
- 40.212 Principles of Economics II
- 53.118 Applied Matrix Algebra
- 40.346 Business and Economics Statistics

Choose one of the following two courses:

- 40.246 Business and Economics Math
- 53.123 Essentials of Calculus

Business Core:

- 91.220 Financial Accounting
- 91.223 Managerial Accounting
- 92.150 Introduction to Computer and Information Science
- 93.344 Principles of Management
- 93.446 Business Policies and Strategies
- 96.313 Introduction to Corporate Finance
- 97.310 Marketing: Principles and Practice
- 98.331 Law and Legal Environment

Finance Specialization

- 96.323 Financial Markets and Institutions
- 96.343 Investment Management
- 96.454 Advanced Corporate Finance
- Plus two Finance electives

Electives - Students must choose 21 semester hours in elective courses from General Business, Accounting, Computer and Information Systems, Management, Office Systems, Finance, Marketing and Business Law. Some additional courses are available as well; students should consult their adviser.

Faculty Profiles

- Karen J. Elwell, associate professor - A.B., A.M., J.D., University of Illinois at Urbana-Champaign
- David G. Hesel, chairperson, associate professor - M.B.A., Ph.D., University of Business, Vienna, Austria
- David G. Martin, associate professor - B.A., C. W. Post College; M.B.A., Western Illinois University; Ph.D., Saint Louis University
- Bruce L. Rockwood, professor - B.A., Swarthmore College; J.D., University of Chicago Law School

MGT (93)**Management**

Administered by: Department of Management

College: Business

Campus address: 222 Sutliff Hall

Telephone number: (570) 389-4385

Fax number: (570) 389-3892

Department chair: M. Ruhul Amin

Degree awarded: Bachelor of Science in Business
Administration

About the Program

Offering customized advisement to tailor a program to the exact goals of individual students, the Department of Management concentrates on the development of business leaders. With an enrollment of more than 400 majors, the program offers a wide range of internship programs with a wide variety of companies as well as an exchange program with universities in Europe. Internship experiences often lead to direct offers of employment.

Placement rate for graduates is 100 percent for men and 93.7 percent for women, which includes both meaningful jobs as well as acceptance into leading MBA programs. Bloomsburg also offers an exceptional MBA program for those who wish to continue their study at the university.

The department provides quality education and training experiences leading to skills in the areas of strategic planning, managerial decision making organizing, staffing, communicating, motivating, leading, controlling, managing diversity, managing operations and technology, managing global operations and managing social responsibility/business ethics issues. A minor in management is also available.

Required Courses

In addition to 54 to 57 semester hours of general education requirements, the program in management requires 27 hours of core business courses, 21 hours of courses specific to management, plus 11 hours of free electives to meet the university requirement of 128 hours for a bachelor's degree.

Among general education courses specifically required are:

20.101 English Composition I

20.102 English Composition II (or 20.104 Honors Composition)

25.103 Public Speaking

40.211 Principles of Economics I

40.212 Principles of Economics II

53.141 Introduction to Statistics

40.346 Business and Economics Statistics

Choose one of the following two courses:

40.246 Business and Economics
Mathematics

53.123 Essentials of Calculus

Business Core:

92.150 Introduction to Computer and
Information Science

91.220 Financial Accounting

91.223 Managerial Accounting

97.310 Marketing: Principles and Practice

93.344 Principles of Management

98.331 Introduction to Law and Legal
Environments

96.313 Introduction to Corporate Finance

93.481 Business Policies and Strategies

Specialized Management Requirements

93.345 Human Resource Management

93.348 Operations Management

93.445 Managerial Communications

- 93.449 Organizational Behavior
- 93.457 Business and Society
- 93.456 International Management
- Plus two management electives

Elective Courses

- 92.254 Management Information Systems

Select four other courses in business to complete a minimum of 63 semester hours. In selecting an elective, the student must have the proper prerequisites and must not take courses below the level for which the student has already has credit hours. Select free elective courses as needed to meet the 128 semester hours required for graduation.

Courses designated with a 91, 92, 93, 96, 97 or 98 prefix are business electives. Students must consult with their adviser when selecting courses.

Requirements for the Minor - Students majoring in disciplines other than management both within and outside the College of Business are provided a broad exposure to management principles and techniques. The minor is designed to prepare students with knowledge and skills necessary to be successful in management/supervisory roles in their major disciplines and/or occupation in a variety of business endeavors.

General Education - as part of their general education, students undertaking the minor in management are required to take the following courses to provide adequate background for successful completion of the required management courses:

- 40.211 Principles of Economics I
- 53.141 Introduction to Statistics (or equivalent)
- 20.101 Composition I
- 20.201 Composition II
- 25.103 Public Speaking

Minor in Management - The minor consists of 18 semester hours. The following courses are required:

- 93.344 Principles of Management
- 93.345 Human Resource Management
- 93.348 Operations Management
- 93.445 Managerial Communications
- 93.449 Organizational Behavior
- 93.456 International Management

Faculty Profiles

Mainuddin Afza, professor - B. Com.(Honors), University of Rajshahi; M.Com., University of Rajshahi; M.B.A., Youngstown State University; Ph.D., National Academy of Sciences, Armenia, Yerevan, the former Soviet Union

M. Ruhul Amin, professor - B.A., M.A., The University of Dhaka; M.A., D.P.A., Carleton University; M.A., Ph.D., The University of Akron

Victor Berardi, assistant professor - B.S., Miami University; M.B.A., Ohio State University; Ph.D., Kent State University

Howard J. Kinslinger, associate professor - B.A., Brandeis University; M.B.A., The City College of New York; Ph.D., Purdue University

Stephen J. Markell, associate professor - B.A., SUNY at Albany; M.A., Ph.D., University of North Carolina at Chapel Hill

Minoo Tehrani, associate professor - B.S., Michigan Technological University; B.S., Pahlavi University, Shiraz, Iran; M.S., Ph.D., Arizona State University

Peter B. Venuto, professor - B.A., Syracuse University; M.B.A., Ph.D., University of Santa Clara

Pamela M. Wynn, professor - B.A., M.A., Ph.D., University of Texas at Arlington

CIS (92)**Management Information Systems**

Administered by: Department of Computer and Information
Systems

College: Business

Campus address: 224 Sutliff Hall

Telephone number: (570) 389-4560

Fax number: (570) 389-3892

Department chair: James S. Dutt

Degree awarded: Bachelor of Science

About the Program

The Department of Computer and Information Systems in the College of Business offers two baccalaureate degree programs: Computer and Information Science (CIS) and Management Information Systems (MIS).

While both programs involve learning how to develop information systems for the business environment, they differ significantly in emphasis.

The Management Information Systems (MIS) major provides both a broad background in business as well as an in-depth knowledge of the process of system development. Students gain a familiarity with the functions of management, accounting, marketing and finance. Specialized courses focus on problem solving techniques, structured programming, systems analysis and design and the process of developing managerial computer applications. The program stresses the importance of computer skills. Students learn a variety of programming languages and work on a number of different hardware platforms, including networked microcomputers, workstations and multiuser minicomputers and mainframe systems. The program prepares students for professional employment in the areas of system development and maintenance, information resource management, management of information systems and end user computing sup-

port.

Students enrolled in this program enjoy use of a dedicated computer lab with current technology on a mainframe computer of sufficient size to operate a medium-sized corporation.

In addition to an exceptional placement rate in a field where demand for professionals is in high demand, the program offers a substantial internship program and students have access to a state-of-the-art dedicated computer lab with a mainframe capable of running a medium-sized corporation.

Students enrolled in other colleges within Bloomsburg University who wish to transfer into the MIS curriculum must have completed a minimum of 15 semester hours at the university.

Required Courses

Bloomsburg University requires 54 semester hours in general education requirements and 128 semester hours to receive a baccalaureate degree. Management Information Systems majors must take 24 semester hours of specific courses and the balance of courses to meet the 128-hour requirement come from electives. A core curriculum for all College of Business majors develops a broad background in business.

Required general education courses include:

20.101 English Composition I

20.201 English Composition II (or 20.104
Honors Composition)

25.103 Public Speaking

40.246 Business and Economics

Mathematics (or 53.123 Essentials of
Calculus)

40.211 Principles of Economics I

40.212 Principles of Economics II

40.346 Business and Economics Statistics

53.118 Applied Matrix Algebra

Business core course requirements include:

91.220 Financial Accounting

91.223 Managerial Accounting

92.150 Introduction to Computer and
Information Science

93.344 Principles of Management

93.446 Business Policies and Strategies

96.313 Introduction to Corporate Finance

97.310 Marketing: Principles and Practice

98.331 Introduction to Law and Legal
Elements

Required course for Management Information
Systems:

92.177 Structured Programming
Methodology

92.251 Mini/Micro Programming Systems

92.252 Business Oriented Programming

92.254 Management Information Systems

92.256 Data and Information Structures

92.351 Systems Analysis and Design

92.352 Advanced Programming

92.354 Data Base Processing Systems

92.456 Managerial Computer Applications

Elective Courses

An additional 12 semester hours are required in business and economics courses. Courses designated with a 40, 91, 92, 93, 96, 97 or 98 prefix are eligible. Note: 90.101 will not be allowed for credit as a business elective once a student has completed 6 semester hours in business administration courses. Additional courses permitted as electives include:

25.307 Business and Professional Speech

42.223 Economic History of the United
States

42.472 History of Labor in the United States

90.101 Introduction to Business

90.431 Independent Study in Business

92.432 Internship in CIS

Internship - While an internship in MIS is not required for a degree, students are strongly encouraged to take 92.432 Internship in Computer and Information Systems. This course, which may be taken for a maximum of 6 semester hours, can be counted only as a free elective.

Faculty Profiles

Patricia M. Boyne, assistant professor - B.A.,
Ladycliff College; M.S., The Pennsylvania State
University; CDP

Carl J. Chimi, associate professor - B.A., M.B.A.,
Ph.D., University of Massachusetts

Frank S. Davis Jr., professor - B.S., M.Ed.,
Shippensburg University; Ph.D., University of
Pittsburgh

James S. Dutt, chairperson, associate professor -
B.S., M.S., Ph.D., The Pennsylvania State Uni-
versity

Harold K. Frey, associate professor - B.S., Lock Ha-
ven University; M.A., Iowa State University;
M.S., Elmira College

Gene M. Gordon, associate professor - B.A.,
Southampton College; M.A., Antioch Univer-
sity; Ed.D., University of Massachusetts

Charles J. Hoppel, associate professor - B.S., Uni-
versity of Scranton; M.E.E., Ph.D., Syracuse
University

MKT (97)**Marketing**

Administered by: Department of Marketing

College: Business

Campus address: 218 Sutliff Hall

Telephone number: (570) 389-4657

Fax number: (570) 389-4993

Department chair: Stephen S. Batory

Degree awarded: Bachelor of Science in Business
Administration

About the Program

The marketing curriculum prepares graduates for numerous career options, including a variety of positions in product management, sales retailing, distribution, product management, advertising management, market research and promotion. Marketing is one of the fastest growing career opportunities in the United States.

Internships are offered year-round in a variety of business settings. Practical experience opportunities are highly recommended.

Marketing majors study the process by which organizations satisfy consumer wants and needs in contemporary society. Major marketing activities such as product planning, distribution, pricing and promotion are analyzed based on market research and consumer behavior. The marketing major gains written and verbal communication skills through class discussion, presentation, case analysis and research projects that develop critical thinking skills. A dedicated core of faculty support students through their active research, which assures up-to-date course coverage.

Required Courses

Among 64 semester hours of general education requirements, English 20.101 and 20.201 and Speech Communication 25.103 are required. A to-

tal of 64 semester hours is required for a major in marketing under the business administration degree program.

Required courses for the core curriculum of the business administration degree include:

- 40.211 Principles of Economics I
- 40.212 Principles of Economics II
- 40.346 Business and Economic Statistics I
- 53.118 Applied Matrix Algebra
- 91.220 Financial Accounting
- 91.223 Managerial Accounting
- 92.150 Introduction to Computer and Information Science
- 93.344 Principles of Management
- 93.481 Business Policies and Strategies
- 96.313 Introduction to Corporate Finance
- 97.310 Marketing: Principles and Practice
- 98.331 Law and Legal Environment

Choose one of the following two courses:

- 40.246 Business and Economics Mathematics
- 53.123 Essentials of Calculus

A total of 21 semester hours is required from the following courses in marketing:

- 97.330 Consumer Motivation and Behavior
- 97.370 Sales Management
- 97.380 International Marketing
- 97.440 Marketing Research
- 97.450 Advertising Management
- 97.460 Marketing Management

3 semester hours of a marketing elective.

Electives in Business - Select courses in business to complete a minimum 63 semester hours. In selecting an elective, the student is reminded to have the proper prerequisites and to avoid elected courses below that level for which the student has already been prepared in that subject field.

Courses designated with a 90, 91, 92, 93, 94 96, 97 or 98 prefix are business courses. Additional courses permitted as electives include:

90.101 Introduction to Business (*Note: 90.101 will not be allowed for credit as a business elective once a student has completed 6 semester hours in business administration courses.*)

10.309 Commercial French I

10.409 Commercial French II

12.309 Commercial Spanish

25.307 Business and Professional Speech

42.472 History of Labor in the United States

General education electives - Select general education courses needed to meet the 128-semester hour graduation requirement.

Select free elective courses as needed to meet the 128 semester hours required for graduation.

Requirements for the Minor - The minor in marketing provides students both within and outside of the College of Business with a broad exposure to marketing theory and technique. The minor is designed for students to apply marketing practices successfully to their major discipline. The minor consists of 18 semester hours, 12 of which must be taken at Bloomsburg University. Required courses include:

97.310 Marketing: Principles and Practice

97.330 Consumer Motivation and Behavior

97.440 Marketing Research

97.460 Marketing Management

Choose two from the following eight courses:

97.320 Marketing for Nonprofit Organizations

97.350 Retail Management Concepts

97.450 Advertising Management

97.370 Sales Management

97.380 International Marketing Management

97.432 Internship in Marketing

97.480 Industrial Marketing Strategy

97.490 Contemporary Problems/Issues in Marketing

Faculty Profiles

Stephen S. Batory, chairperson, professor - B.S., King's College; M.B.A., Old Dominion University; D.B.A., University of Maryland

Mary K. Ericksen, professor - B.S., M.S., The Ohio State University; Ph.D., Virginia Polytechnic Institute and State University

Morry Ghingold, associate professor - B.Comm., M.B.A., McGill University; Ph.D., The Pennsylvania State University

Hank A. Laskey, associate professor, Marketing - B.Sc., M.Sc., Clemson University; Ph.D., University of Georgia

Salim Qureshi, associate professor, Marketing - B.S., University of Karachi; M.B.A., Adelphi University; Ph.D., The Union Graduate School of Ohio

Robert N. Watts Jr., associate professor, Marketing - B.S., Susquehanna University; M.B.A., Ohio University

OIS (94)**Office Information Systems**

Administered by: Department of Business Education and
Office Information Systems

College: Business

Campus address: 217 Sutliff Hall

Telephone number: (570) 389-4756

Fax number: (570) 389-3892

Department chair: Donna J. Cochrane

Degree awarded: Bachelor of Science in Business
Administration

About the Program

Defined as the use of information/computer technologies to support office work and improve employee performance and organizational effectiveness, Office Information Systems addresses the continually changing needs of both business and government.

The program at Bloomsburg places heavy emphasis on end-user computing, with program requirements developed based on the Office Systems Research Association curricular guidelines. It demands strong written and oral communication skills, a broad range of general education and business administration courses as well as the ability to stay abreast of technology. Completion of an internship experience to explore career opportunities and to build a resume is highly encouraged and opportunities for such experiences are varied to meet individual needs.

Office Information Systems graduates find a wide range of career opportunities in government, financial institutions, hospitals, insurance companies and communications services as well as such consumer services as hospitality, travel, sports, transportation and education. Graduates are prepared to manage human resources, plan for and implement new techniques, analyze office environment

(including layout and design) and evaluate the impact of technology on an organization's policies and procedures.

One of six departments in the College of Business, Office Information Systems includes six faculty, all with doctoral degrees, who possess diverse work and teaching experiences and who are active in state, regional and national professional organizations. Currently, only 68 universities in the United States offer a degree in office systems and the program at Bloomsburg is considered a national model.

Required Courses

In addition to 54 semester hours of general education requirements, a total of 81 to 84 semester hours is required for a major in office information systems. Elective courses complete the balance of the university's 128-hour requirement for a bachelor's degree. Several specific general education courses are required in this major. They include:

20.101 Composition I

20.201 Composition II

25.103 Public Speaking

40.211 Principles of Economics I

40.212 Principles of Economics II

53.141 Introduction to Statistics

Choose one of the following two courses:

40.246 Business and Economic Mathematics

53.123 Essentials of Calculus

Requirements for the Major - A total of 81 to 84 semester hours is required for a major in office information systems. This total reflects program requirements and general education courses. Required courses include:

- 90.101 Introduction to Business
- 90.333 Business Communications and Report Writing
- 91.220 Financial Accounting
- 91.223 Managerial Accounting
- 92.150 Introduction to Computer and Information Science
- 93.344 Principles of Management
- 93.481 Business Policies and Strategies
- 94.221 Office Systems Concepts
- 94.302 Business Document Generation
- 94.330 Telecommunications
- 94.405 Training and Development in Office Systems
- 94.407 Information and Office Environment Management
- 96.313 Introduction to Corporate Finance
- 97.310 Marketing: Principles and Practice
- 98.331 Introduction to Law and Legal Elements
- 300- or 400-level business elective with advisor's approval

Electives and Free Electives - Students must choose 15 semester hours in elective courses from General Business, Accounting, Computer and Information Systems, Management, Office Information Systems, Finance, Marketing and Business Law.

Faculty Profiles

- Donna J. Cochrane, chairperson, professor - A.A.S., Dutchess Community College; B.S., M.S., State University of New York at Albany; Ed.D., Temple University
- Nancy A. Dittman, associate professor - B.S., Florida State University; M.Ed., University of Florida; Ed.D., University of Colorado
- Dennis O. Gehris, associate professor - B.S., M.A., Rider College; Ed.D., Temple University
- Janice C. Keil, associate professor - B.S., M.Ed., Bloomsburg University of Pennsylvania; Ed.D., Temple University
- John J. Olivo, professor - B.S., Davis and Elkins College; M.Ed., Trenton State College; Ph.D., Michigan State University

College of Professional Studies

Ann L. Lee

Dean, College of Professional Studies

The College of Professional Studies offers undergraduate and/or graduate programs in nursing, health sciences, teacher education, communication disorders, education of the deaf/hard of hearing, interpreter training and reading specialist. The college includes the School of Health Sciences and the School of Education. Programs offered in this college are accredited by national professional organizations which ensure the student that program quality is maintained.

The School of Education provides programs which prepare teachers for early childhood, elementary education, special education and education of the deaf/hard of hearing. Secondary education programs include specialization in biology, chemistry, communication, comprehensive social studies, earth science, English, French, German, mathematics, physics, general science and Spanish. There are also programs offering dual certification, including early childhood/elementary and elementary/special education.

The teacher education programs are among the 500 programs in the United States that have achieved accreditation by the National Council for Accreditation of Teacher Education (NCATE). The deaf/hard of hearing program is accredited by the Council for Education of the Deaf. All teacher education areas of study have received pro-

gram approval by the Pennsylvania Department of Education to recommend certification for teaching in the areas listed above.

Graduate programs in teacher education include special education, deaf/hard of hearing, early childhood education, elementary education and curriculum and instruction is available for secondary level graduate studies. Specialist programs are available at the graduate level in reading and supervision. A cooperative doctoral program in early childhood education and elementary education is offered in cooperation with Indiana University of Pennsylvania.

The School of Health Sciences provides undergraduate programs in nursing, adult health, medical imaging, pre-pharmacy, pre-physical therapy, pre-occupational therapy, medical technology, pre-cytotechnology, health sciences associate and allied health sciences. Graduate programs are available in Speech Pathology and Audiology, Exercise Science and Adult Fitness and Nursing.

The program of study in nursing is accredited by the National League for Nursing and approved by the Pennsylvania State Board of Nursing. The speech pathology and audiology program is accredited by the National Speech, Hearing and Language Association.

SPA (72)

Audiology and Speech Pathology

Administered by: Department Audiology and Speech Pathology

College: Professional Studies, School of Health Sciences

Campus address: 1 Navy Hall

Telephone number: (570) 389-4436

TDD number: (570) 389-4864

Fax number: (570) 389-3980

**Department chair e-mail: Richard Angelo
(kmiller@bloomu.edu)**

Degree awarded: Bachelor of Science

About the Program

The undergraduate program in audiology and speech pathology prepares students for admission to graduate education in either audiology or speech-language pathology. Entry-level credentials for both professions require a master's degree. As such, Bloomsburg University does not make recommendations for state certification in either discipline at completion of the undergraduate program.

The preprofessional curriculum provides the student with a broad general education background. The primary emphasis is on general education with a few introductory courses pertaining to the professions of speech pathology and audiology. The required undergraduate courses are prerequisite to graduate school admission and are based on the American Speech-Language-Hearing Association (ASHA) accreditation and certification requirements.

The program, which attracts students from throughout the world, is structured to allow students flexibility in determining career direction toward audiology or speech-language pathology. The undergraduate program has a comprehensive speech science and audiology laboratory with state-

of-the-art equipment. Access and familiarity with speech and audiology instrumentation is regarded as an important plus for students applying to graduate programs. Many Bloomsburg students are accepted in nationally recognized graduate programs throughout the country, including Bloomsburg's own CAA accredited master's programs.

At the graduate level, Bloomsburg has one of only two master's programs in audiology found in Pennsylvania. Graduates enjoy a 100 percent career placement rate in this area. Students gain experience in evaluation and treatment, digital hearing aid fitting, aural rehabilitation, electrophysiological assessment (ABR, ENG, OAE) and occupational and environmental hearing conservation.

The graduate speech-language pathology program provides a comprehensive curriculum that prepares the graduate for work in a wide variety of occupational settings. In addition to courses typically offered, Bloomsburg has separate course in augmentative communication, swallowing disorders, head trauma and both a preschool and school-age language course. Over the past seven years, 100 percent of the graduates have passed the National Examination in Speech Pathology and Audiology.

Bloomsburg graduate students receive practical experience in the university's Speech, Hearing and Language Clinic, which provides diagnostic and intervention services in audiology, speech and language to area residents. Graduate students are enrolled in several practicum experiences throughout their program of study.

Factors suggesting a high probability of success in this very demanding program include strong verbal, quantitative and analytical skills, leadership abilities, interest in volunteer work and an outgoing

personality.

Admission to the graduate programs in audiology and speech pathology is competitive and limited. Graduates of the master's degree program in speech pathology are eligible for certification in speech correction granted by the Pennsylvania Department of Education, the Certificate of Clinical Competence in Speech Pathology issued by the American Speech-Language Hearing Association (ASHA) and licensure in speech pathology issued by the Commonwealth of Pennsylvania. Graduates of the master's degree program in audiology are eligible for the Certificate of Clinical Competence in Audiology issued by the American Speech-Language Hearing Association (ASHA) and licensure in audiology issued by the Commonwealth of Pennsylvania.

Required Courses

In addition to 54 semester hours of general education requirements, a total of 51 semester hours is required for a major in speech pathology and audiology and with the addition of 23 semester hours of elective courses, the university degree requirement of 128 hours is met. Students should work with their adviser on course selection.

The following courses in speech pathology and audiology are required:

- 48.160 Basic Statistics
- 50.366 Anatomy and Physiology: Head, Neck and Thorax
- 70.101 Introduction to the Exceptional Individual
- 70.202 Technology for Exceptionalities
- 72.152 Introduction Communication Disorders
- 72.200 Introduction to Audiology
- 72.220 Phonetics
- 72.240 Normal Language Acquisition
- 72.300 Auditory Training and Speech Reading
- 72.310 Speech Science
- 72.320 Assessment and Remediation of Language Disorders

- 72.330 Assessment and Remediation of Speech Disorders
- 72.340 Applied Behavioral Analysis for Speech and Language
- 72.430 Fundamentals of Audiology
- 72.450 Clinical Observation
- 72.460 Psycholinguistics

Faculty Profiles

- Dianne H. Angelo, professor - B.S., M.Ed., Clarion University; M.S., Ph.D., University of Pittsburgh
- Richard M. Angelo, professor, chairperson, Clinical Director - B.S., Mansfield University of Pennsylvania; M.Ed., Bloomsburg University of Pennsylvania; Ed.D., Lehigh University; Ph.D., University of Pittsburgh
- Shaheen N. Awan, associate professor - B.A., University of Western Ontario; M.S., Clarion University of Pennsylvania; Ph.D., Kent State University
- Ronald R. Champoux, professor - B.A., Providence College; M.A.T., Assumption College; M.S., M.A., Ph.D., University of Michigan
- Robert J. Lowe, professor - B.A., Slippery Rock University; M.Ed., Clarion University; Ph.D., Ohio University
- Peter Stine, associate professor - B.A., Wesleyan University, Ph.D., The Pennsylvania State University
- G. Donald Miller, assistant chairperson, professor - B.S., Indiana University of Pennsylvania; M.A., Ph.D., Temple University
- Jody Seip, clinical staff - B.S., M.S., Bloomsburg University of Pennsylvania
- Peggy Snyder, clinical staff - B.S., M.S., Bloomsburg University of Pennsylvania
- Vishakha W. Rawool, professor - B.Sc., Bombay University; M.A., University of Texas at El Paso; Ph.D., Purdue University
- Julia Mount-Weitz, associate professor - B.S., Emerson College; M.S., Ph.D., University of Pittsburgh

School of Education

Mission Statement

The mission of the Bloomsburg University School of Education is twofold:

- 1) to enhance the quality of education by preparing professionals who are empowered to facilitate the learning, growth and development of students in our diverse and technologically complex world; and
- 2) to serve as a resource to communities in the region.

A professional educator is a reflective practitioner who is a knowledgeable and thoughtful facilitator of human growth and development. This professional cultivates in learners an ability to apply critical thinking to the solution of problems. This professional displays a sense of empowerment through:

- the acquisition of a knowledge base
- the ability to see connections between theory and practice
- the use of technology for educational outcomes
- an understanding of a wide variety of strategies for accommodating the developmental readiness and learning style variations associated with all aspects of diversity
- an application of this expertise to the broader community

As a resource, the School of Education serves schools organizations and families through a variety of endeavors that contribute to the vitality of our partnerships within the region. These endeavors include board memberships, clinical services, consultantships, field activities, inservice programs, research and service learning.

Teacher Education Conceptual Framework

The faculty of the School of Education adopted the teacher education conceptual framework based on *Enhancing Professional Practice: A Framework for Teaching* by Charlotte Danielson. The components of professional practice include the following four domains:

Domain I: Planning and Preparation

Demonstrating Knowledge of Content and

Pedagogy - Knowledge of content, prerequisite relationships and content-related pedagogy.

Demonstrating Knowledge of Students -

Knowledge of characteristics of age group, students' varied approaches to learning, students' skills and knowledge and students' interests and cultural heritage.

Selecting Instructional Goals - Value, clarity, suitability for diverse students, balance.

Demonstrating Knowledge of Resources -

Resources for teaching and students.

Designing Coherent Instruction - Learning activities, instructional materials and resources, instructional groups and lesson and unit structure.

Assessing Student Learning - Congruence with instructional goals, criteria and standards, use for planning.

Domain II: The Classroom Environment

Creating and Environment of Respect and

Rapport - Teacher interaction with students and student interaction.

- Establishing a Culture for Learning -**
Importance of the content, student pride in work and expectations for learning and achievement.
- Managing Classroom Procedures -**
Management of instructional groups, transitions and materials and supplies; performance of noninstructional duties and supervision of volunteers and paraprofessionals.
- Managing Student Behavior -** Expectations, monitoring of student behavior and response to student misbehavior.
- Organizing physical space -** Safety and arrangement of furniture, accessibility to learning and use of physical resources.

Domain III: Instruction

- Communicating Clearly and Accurately -**
Directions and procedures oral and written language.
- Using Questioning and Discussion Techniques -** Quality of questions, discussion techniques and student participation.
- Engaging Students in Learning -**
Representation of content, activities and assignments, grouping of students, instructional materials and resources and structure and pacing.
- Providing Feedback to Students -** Quality (accurate substantive, constructive and specific) and timeliness.
- Demonstrating Flexibility and Responsiveness -** Lesson adjustment, response to students and persistence.

Domain IV: Professional Responsibilities

- Reflecting on Teaching -** Accuracy, use in future teaching.
- Maintaining Accurate Records -** Student completion of assignments, student progress in learning and non-instructional records.
- Communicating with Families -** Information about the instructional program and individual students and engagement of families in the instructional program.

- Growing and Developing Professionally -**
Enhancement of content knowledge and pedagogical skill and service to the profession.
- Showing Professionalism -** Service to students, advocacy and decision-making

Accreditation and Certification

Accreditation of Teacher Education - Bloomsburg is accredited by the National Council for the Accreditation of Teacher Education (NCATE) and the Council on Education of the Deaf. The teacher education programs outlined in this catalog have been approved for teacher certification by the Pennsylvania Department of Education. The Speech, Hearing and Language Clinic is certified by the Professional Services Board of the American Speech, Hearing and Language Association.

Teacher Certification - The completion of one of the approved programs in teacher education is prerequisite to institutional recommendation for a teacher's certificate. Upon recommendation, an initial certificate is granted by the Commonwealth of Pennsylvania. The appeal procedure for considering the problems of certification candidates can be found in the section of the catalog dealing with academic grievances.

As of June 1987, all individuals seeking teacher certification in Pennsylvania are required to pass state-mandated tests at levels determined by the Secretary of Education. The tests assess basic skills, general knowledge, knowledge of subjects in which certification is sought and professional knowledge. Students must pass the specialty test for each area of certification,

An initial certificate is designated as Instructional Level I. It is valid for six years. A Level I certificate is not subject to renewal beyond a total of six years after the individual begins teaching. A permanent Level II certificate is issued upon completion of three years of successful teaching and experience under a Level I certificate and the completion of a minimum of 24 semester hours of postbaccalaureate coursework.

Programs offered for Level I certification are: Early Childhood Education (Preschool through Grade 3)

Elementary Education (Kindergarten through Grade 6)

Business Education (accounting, data processing, marketing)

Secondary Education (biology, chemistry, communication, earth science, English, French, Spanish, general science, mathematics, physics, comprehensive social studies)

Special Education (mentally and/or physically handicapped)

Communication Disorders (speech correction or hearing impaired)

Interstate Certificate Agreements - Pennsylvania cooperates in several interstate agreements that stipulate that holders of Pennsylvania Instructional Certificates are eligible, subject to special provisions, for reciprocal credentials in other states. Participating states currently include: Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Montana, Nevada, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Puerto Rico, Rhode Island, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Washington and West Virginia. This list is updated as additional states complete the contract process. Other states may be willing to grant reciprocity. Graduates of Pennsylvania-approved programs are advised to contact the teacher certification office in the state in which they wish to obtain certification for application forms and instructions. The names and addresses of the appropriate officials should be available in most college placement offices.

Admission to Candidacy

Students should submit application to candidacy no later than completion of 65 credits. Transfer students should submit application to candidacy after completion of the first semester at Bloomsburg University, but not before the second semester of their sophomore year. Enrollment in upper-division teacher education coursework (300 and 400-level courses) is contingent upon admission to the teacher education program.

1. Possession of an overall cumulative grade point average of 2.5 or higher.
2. Successful completion of a five to 10-day non-credit field experience in the freshman year or at the earliest possible time in the case of trans-

fer or non-traditional students.

3. Submission of two (2) recommendations from teacher education faculty.
4. Successful completion (grade of C or better) of two English composition courses or Honors Composition and Public Speaking or interpersonal communication course.
5. Completion of speech screening, hearing screening and tuberculosis screening. (Speech and hearing screening tests can be completed at no cost to the student in the Speech, Hearing and Language Clinic in Navy Hall. Tuberculosis testing is available each semester at minimal cost to students).
6. Possession of a professional liability insurance policy is highly recommended.
7. Submission of a resume that includes personal interests, special skills and experience with children, youth or adults that would be relevant for a preservice teacher.
8. Completion of Act 34 clearance.
9. The completed admission packet should be submitted to the faculty adviser, who will review the packet, interview the student and submit a recommendation to the department chairperson indicating that the student be admitted or not be admitted to the program.

Admission to teacher education programs permits students to schedule upper-division teacher education courses (300 and 400 level).

Monitoring

1. Completion of all professional education courses with a grade of C or better.
2. Maintenance of an overall cumulative grade point average of 2.5 or better and an average of 2.5 or better in the area of academic specialization or be placed on probation one semester. If grade point average falls below 2.5 overall or below a 2.5 in the area of academic specialization in a secondary education program beyond one semester, then dismissal from the program, but not the department, occurs. Students will remain in the department for one additional semester after dismissal from the program so that appropriate advisement is available to the student.
3. Continuation of field and clinical experiences as outlined in the curriculum.
4. Continuation of professional liability insurance is recommended.

5. Students are required to make contact with their adviser(s) throughout the program of study.

There will be close supervision of the above criteria by advisers and chairpersons to ensure student teaching eligibility and to suggest counseling and/or remediation.

Eligibility for Student Teaching

Eligibility for student teaching will be determined at the scheduling period prior to the semester of student teaching. Student teaching eligibility is contingent upon:

1. Completion of the admission to candidacy process.
2. Possession of an overall cumulative grade point average of 2.5 or better and an average of 2.5 or better in the area of academic specialization.
3. A grade of C or better in all professional education and specialty courses.
4. Completion of appropriate methods courses determined by each teacher education program.
5. Continuation of a professional liability insurance policy or presentation of evidence of membership in a professional education organization providing professional liability insurance.
6. Completion of Act 34 clearance.

Competency in Student Teaching

1. Recommendations from and competency evaluation by cooperating teacher(s).
2. Recommendations from and competency evaluation by university supervisor(s).
3. A grade of C or better.

Exit Criteria

1. Completion of the prescribed teacher education curricula with an overall cumulative grade point average of 2.5 or better and a 2.5 average in the area of specialization.
2. Demonstration of competency in student teaching.

In order to receive Pennsylvania Department of Education Instructional Level I certification, candidates must successfully complete Praxis Series (cut-off scores to be established by the secretary of education): Core battery tests (general knowledge, principles of learning and teaching, communication skills) and specialty tests.

Student Teaching - Teacher education culminates in student teaching. Having satisfied the prerequisites for student teaching courses, undergraduates are assigned to positions in public or pri-

vate schools for the first or second semester of their senior year. They are placed based on the availability of qualified cooperating teachers in their subject area and the willingness of schools with programs approved by the university. Students should be prepared to accept assignments in any of the student teaching centers.

A student teaching semester is divided into two equal periods so that students may teach at two grade levels and frequently in two socioeconomic environments. Because of constantly changing educational and socioeconomic circumstances, flexibility of format is maintained in the student teaching program.

Student Teaching Centers

Student teaching centers and cooperating teachers are drawn from urban, suburban and rural areas. Students in early childhood, elementary and secondary education may be assigned to Central Pennsylvania, to suburban Philadelphia or to inner-city locations. Business education student teaching centers are located in the Bloomsburg, Allentown and Williamsport areas.

Students may arrange their student teaching assignment in one of the international centers with which Bloomsburg cooperates: for example, in Liverpool or London, England. Information about this program may be obtained from department chairpersons.

Cooperating Teachers and Clinicians are selected by faculty in teacher education based on criteria set forth by the Pennsylvania Department of Education. These parameters are:

1. At least three years of teaching experience, one year of which has been in the district to which the teacher candidate is assigned;
2. A teaching assignment appropriate to the subject competency of the teacher candidate;
3. Completion of a program of preparation on observation and evaluation skills developed by the college or university for the cooperating teacher.

Training at the university is achieved through the following means:

1. Individualized training;
2. Use of student teaching and clinical manual;
3. Providing research and reading materials to cooperating teachers and clinicians on a regular basis;
4. Consortiums (cooperating teachers/clinicians are invited to a yearly meeting);
5. Graduate course offerings.

ELE (62)**Early Childhood Education**

**Administered by: Department of Early Childhood and
Elementary Education**

College: Professional Studies

**Campus address: 3213 McCormick Center for Human
Services**

Telephone number: (570) 389-4032

Fax number: (570) 389-3894

Department chair: John R. Hranitz

Degree awarded: Bachelor of Science in Education

About the Program

The teacher education program at Bloomsburg University is committed to improving the field of education through a comprehensive program, which recognizes its unique contribution to society, both as a reflection of that society and as an agent for the improvement of society. To meet this obligation, the programs draw upon the knowledge and understanding of general as well as professional education. It strives for a blend in preparing a person to fulfill a role in society as an informed, inquiring and skilled professional.

Facilities are modern and up-to-date technologies are available, including a course in educational computing. A state-of-the-art computer laboratory enables students to learn current advances in computer-assisted instruction.

Students are required to spend time observing and assisting in actual classroom settings through two field studies courses offered in the sophomore and junior years. These courses prepare students for the actual student teaching experience. Students may select an internship which provides a work-study program in an education-related setting. Overseas student teaching opportunities are another available option.

Early childhood education curriculum focuses on the growth and development of young children in addition to teaching specialized skills for dealing with the very young child. Students have the opportunity to gain practical experience by working at the campus child care center. Students in this program earn a Bachelor of Science in Education with nursery school/kindergarten through grade three Instructional Level I certification.

Required Courses

In addition to 54 semester hours of general education requirements, early childhood education majors must take 74 hours of professional education and early childhood education specialization courses to satisfy the university's 128-hour requirement for a bachelor's degree. Requirements for Early Childhood Education (N-K-3) develop knowledge of the nature of the child, the nature of the school and center, the learning process, general methods of teaching and methods of teaching particular subjects and to provide student teaching experience. A total of 65 semester hours is taken in required courses. None may be taken on a pass/fail basis. An area of concentration is optional. No free electives are available for this program.

60.201 Field Studies in Education I

60.204 Educational Computing and
Technology

60.251 Psychological Foundations of
Education or 48.251 Psychological
Foundations

60.291 Principles of Teaching

60.301 Field Studies in Education II

60.311 Classroom Measurement and
Assessment

- 60.497 Teaching in Education: First Experience
- 60.498 Teaching in Education: Second Experience
- 62.121 Introduction to Early Childhood Education
- 62.302 Teaching Science in the Elementary School
- 62.310 Teaching Fine Arts in the Elementary School
- 62.322 Seminar in Learning Experiences with Young Children
- 62.371 Teaching Reading in the Elementary School
- 62.373 Diagnostic and Inclusionary Practices
- 62.390 Teaching Social Studies in the Elementary School
- 62.391 Teaching Language Arts in the Elementary School
- 62.398 Teaching Mathematics in the Elementary School
- 62.410 Methods and Materials in Early Childhood Education I
- 62.420 Methods and Materials in Early Childhood Education II
- 70.101 Introduction to Exceptional Individuals
- 60.393 Social Foundations of Education or 60.394 Multicultural Education

Elective Courses - A minimum of 9 to 12 semester hours is taken in elective courses. None of these courses may be taken on a pass/fail basis.

- 05.311 Methods and Materials in Elementary School Physical Education
- 05.320 Health and Safety in the Elementary School

- 20.384 Literature for Children
- 30.205 Children's Art
- 60.302 Research Literacy
- 60.427 Classroom Management and Effective Discipline
- 62.304 Environmental Education in the Elementary School
- 62.376 Language Experiences for Children
- 62.389 Individualized Instruction Activities in the Elementary School
- 79.312 Internship in Education (1 to 3 semester hours only in this area)

Faculty Profiles

- Gary J. Doby, associate professor - B.S., M.S., State University of New York College at Buffalo; Ph.D, SUNY at Buffalo
- Bonita B. Franks, associate professor -B.S., M.S., Central Connecticut State University; Ph.D., The Pennsylvania State University
- John R. Hranitz, professor - B.S., M.Ed., Ed.D., Indiana University of Pennsylvania
- Lorraine A. Shanoski, professor - B.S., M.Ed., Northeastern University; Ed.D., Indiana University of Pennsylvania
- Frank Misiti, associate professor - B.S., Mansfield State College; M.Ed., Ph.D., The Pennsylvania State University
- William S. O'Bruba, professor - B.S., California State College; M.Ed., Duquesne University; Ed.D., Indiana University of Pennsylvania
- Rosemary T. Radzievich, assistant professor - B.A., The Pennsylvania State University; M.Ed., Bloomsburg University; Ed.D., Lehigh University
- Bonnie L. Williams, associate professor - B.S., M.Ed., Bloomsburg University; Ed.D., Temple University

ELE (62)**Elementary Education**

**Administered by: Department of Early Childhood and
Elementary Education**
College: Professional Studies
**Campus address: 3213 McCormick Center for Human
Services**
Telephone number: (570) 389-4032
Fax number: (570) 389-3894
Department chair: John R. Hranitz
Degree awarded: Bachelor of Science in Education

About the Program

The teacher education program at Bloomsburg University is committed to improving the field of education through a comprehensive program, which recognizes its unique contribution to society, both as a reflection of that society and as an agent for the improvement of society. To meet this obligation, the programs draw upon the knowledge and understanding of general as well as professional education. It strives for a blend in preparing a person to fulfill a role in society as an informed, inquiring and skilled professional.

The Department of Early Childhood and Elementary Education teacher education programs in elementary and early childhood are accredited.

Facilities are modern and up-to-date technologies are available, including a course in educational computing. A state-of-the-art computer laboratory enables students to learn current advances in computer-assisted instruction.

Students are required to spend time observing and assisting in actual classroom settings through two field studies courses offered in the sophomore and junior years. These courses prepare students for the actual student teaching experience. Students may select an internship which provides a work-study program in an education-related set-

ting. Overseas student teaching opportunities are another available option.

The major in elementary education leads to a Bachelor of Science in Education and Instructional Level I certification to teach kindergarten through sixth grade (K-6). (The major in early childhood education provides a Bachelor of Science in Education with certification to teach nursery through third grade, N, K-3).

A dual certification program leading to a bachelor's degree and certificates for teaching K-6 and nursery school/kindergarten through third grade (N, K-3) is available.

Required Courses

In addition to 54 semester hours of general education requirements, elementary education majors take 62 semester hours of professional education. The balance of the university's 128-hour requirement for a bachelor's degree comes from elective courses. The courses required for the major are intended to develop knowledge of the nature of the child, the nature of the school, the learning process, general methods of teaching and methods of teaching particular subjects and to provide student teaching experience. A total of 53 semester hours is taken in required courses and nine in education electives. None may be taken on a pass/fail basis. An area of concentration is optional.

- 60.201 Field Studies in Education I
- 60.204 Educational Computing and Technology
- 60.251 Psychological Foundations of Education or 48.251 Psychological Foundations
- 60.291 Principles of Teaching
- 60.301 Field Studies in Education II

- 62.310 Teaching Fine Arts in the Elementary School
- 60.311 Educational Measurements and Evaluation
- 60.497 Teaching in Education: First Experience
- 60.498 Teaching in Education: Second Experience
- 62.302 Teaching Science in the Elementary School
- 62.371 Teaching Reading in the Elementary School
- 62.373 Diagnostic and Remedial Reading
- 62.390 Teaching Social Studies in the Elementary School
- 62.391 Teaching Language Arts in the Elementary School
- 62.398 Teaching Mathematics in the Elementary School
- 60.393 Social Foundations of Education or 60.394 Multicultural Education

Elective Courses - No elective courses may be taken on a pass/fail basis. Students select a minimum of 9 to 12 semester hours from the following courses:

- 05.311 Methods and Materials in Elementary School Physical Education
- 05.320 Health and Safety in the Elementary School
- 35.311 Music in the Elementary School
- 20.384 Literature for Children
- 30.205 Children's Art
- 60.302 Research Literacy
- 60.427 Classroom Management and Effective Discipline
- 62.121 Introduction to Early Childhood Education
- 62.304 Environmental Education for the Elementary School Teacher

- 62.322 Seminar in Learning Experiences with Young Children
- 62.376 Language Experiences for Children
- 62.389 Individualized Instruction Activities in the Elementary School
- 62.400 Workshop in Teaching Mathematics in Early Childhood and Elementary Education
- 62.410 Methods and Materials in Early Childhood Education I
- 62.420 Methods and Materials in Early Childhood Education II
- 79.312 Internship in Education (1 to 3 semester hours only in this area)

Faculty Profiles

- Gary J. Doby, associate professor - B.S., M.S., State University of New York College at Buffalo; Ph.D., SUNY at Buffalo
- Bonita B. Franks, associate professor -B.S., M.S., Central Connecticut State University; Ph.D., The Pennsylvania State University
- John R. Hranitz, professor - B.S., M.Ed., Ed.D., Indiana University of Pennsylvania
- Lorraine A. Shanoski, professor - B.S., M.Ed., Northeastern University; Ed.D., Indiana University of Pennsylvania
- Frank Misiti, associate professor - B.S., Mansfield State College; M.Ed., Ph.D., The Pennsylvania State University
- William S. O'Bruba, professor - B.S., California State College; M.Ed., Duquesne University; Ed.D., Indiana University of Pennsylvania
- Rosemary T. Radzievich, assistant professor - B.A., The Pennsylvania State University; M.Ed., Bloomsburg University; Ed.D., Lehigh University
- Bonnie L. Williams, associate professor - B.S., M.Ed., Bloomsburg University; Ed.D., Temple University

ELE (62)

Elementary and Early Childhood Education (Dual Certification)

Administered by: Department of Early Childhood and
Elementary Education
College: Professional Studies
Campus address: 3213 McCormick Center for Human
Services
Telephone number: (570) 389-4032
Fax number: (570) 389-3894
Department chair: John R. Hranitz
Degree awarded: Bachelor of Science in Education

About the Program

The teacher education program at Bloomsburg University is committed to improving the field of education through a comprehensive program which recognizes its unique contribution to society, both as a reflection of that society and as an agent for the improvement of society. To meet this obligation, the programs draw upon the knowledge and understanding of general as well as professional education. It strives for a blend in preparing a person to fulfill a role in society as an informed, inquiring and skilled professional.

The Department of Elementary and Early Childhood Education includes teacher education programs in elementary, early and childhood education. All programs are accredited.

Facilities are modern and up-to-date technologies are available, including a course in educational computing. A state-of-the-art computer laboratory enables students to learn current advances in computer-assisted instruction.

Students are required to spend time observing and assisting in actual classroom settings through two field studies courses offered in the sophomore and junior years. These courses prepare students for the actual student teaching experience. Students may select an internship which provides a

work-study program in an education-related setting. Overseas student teaching opportunities are another available option.

The dual certification program leads to a bachelor's degree and Instructional Level 1 certificates for teaching K-6 and nursery school/kindergarten through third grade, N, K-3.

Elementary and early childhood education majors must complete the general education requirements and 54 credits of academic background courses. Elementary education majors are required to take 62 credits of professional education. Early childhood education majors take 74 credits of professional education and early childhood education specialization.

Required Courses

In addition to a total of 54 semester hours in general education courses, 65 hours of course requirements for dual certification develop knowledge of the nature of the child, the nature of the school, the learning process, general methods of teaching, methods of teaching particular subjects and to provide student teaching experience. None may be taken on a pass/fail basis. An area of concentration is optional. The balance of the university's 128-hour requirement for a bachelor's degree come from elective courses.

60.201 Field Studies in Education I

60.204 Educational Computing and
Technology

60.251 Psychological Foundations of
Education or 48.251 Psychological
Foundations of Education

60.291 Principles of Teaching

60.301 Field Studies in Education II

- 60.311 Classroom Measurement and Assessment
- 60.393 Social Foundations of Education or 60.394 Multicultural Education
- 60.497 Teaching in Education: First Experience
- 60.498 Teaching in Education: Second Experience
- 62.121 Introduction to Early Childhood Education
- 62.302 Teaching Science in the Elementary School
- 62.310 Teaching Fine Arts in the Elementary School
- 62.322 Seminar in Learning Experiences with Young Children
- 62.371 Teaching Reading in the Elementary School
- 62.373 Diagnostic and Inclusionary Practices
- 62.390 Teaching Social Studies in the Elementary School
- 62.391 Teaching Language Arts in the Elementary School
- 62.398 Teaching Mathematics in the Elementary School
- 62.410 Methods and Materials in Early Childhood Education I
- 62.420 Methods and Materials in Early Childhood Education II

Elective Courses - A minimum of 9 to 12 semester hours is taken in elective courses. None of these courses may be taken on a pass/fail basis.

- 05.311 Methods and Materials in Elementary School Physical Education
- 05.320 Health and Safety in the Elementary School

- 20.384 Literature for Children
- 30.205 Children's Art
- 35.311 Music in the Elementary School
- 60.302 Research Literacy
- 60.427 Classroom Management and Effective Discipline
- 62.304 Environmental Education in the Elementary School
- 62.376 Language Experiences for Children
- 62.389 Individualized Instruction Activities in the Elementary School
- 79.312 Internship in Education (I to 3 semester hours only in this area)

Faculty Profiles

- Gary J. Doby, associate professor - B.S., M.S., State University of New York College at Buffalo; Ph.D., SUNY at Buffalo
- Bonita B. Franks, associate professor -B.S., M.S., Central Connecticut State University; Ph.D., The Pennsylvania State University
- John R. Hranitz, professor -B.S., M.Ed., Ed.D., Indiana University of Pennsylvania
- Lorraine A. Shanoski, professor - B.S., M.Ed., Northeastern University; Ed.D., Indiana University of Pennsylvania
- Frank Misiti, associate professor - B.S., Mansfield State College; M.Ed., Ph.D., The Pennsylvania State University
- William S. O'Bruba, professor - B.S., California State College; M.Ed., Duquesne University; Ed.D., Indiana University of Pennsylvania
- Rosemary T. Radzевич, assistant professor - B.A., The Pennsylvania State University; M.Ed., Bloomsburg University; Ed.D., Lehigh University
- Bonnie L. Williams, associate professor - B.S., M.Ed., Bloomsburg University; Ed.D., Temple University

EDF (60)**Secondary Education**

**Administered by: Department of Educational Studies and
Secondary Education**

College: Professional Studies

**Campus address: 1210 McCormick Center for Human
Services**

Telephone number: (570) 389-4025

Fax number: (570) 389-3894

Department chair: David E. Washburn

Degree awarded: Bachelor of Science in Education

About the Program

The teacher education program at Bloomsburg University is committed to improving the field of education through a comprehensive program which recognizes its unique contribution to society, both as a reflection of that society and as an agent for the improvement of society. To meet this obligation, the programs draw upon the knowledge and understanding of general as well as professional education. It strives for a blend in preparing a person to fulfill a role in society as an informed, inquiring and skilled professional.

The Department of Educational Studies and Secondary Education includes teacher education programs, educational studies, educational technology, student teacher supervision (pre-K-12) and secondary education. All programs are accredited.

Facilities are modern and up-to-date technologies are available including courses in educational computing. A state-of-the-art computer laboratory enables students to maintain familiarity with cutting-edge advances in computer technology. The department also houses the Urban Learning Academy and the Link-to-Learn Technology Project.

Students are required to spend time observing and assisting in actual classroom settings through two field studies courses offered in the sophomore

and junior years. These courses prepare students for the actual student teaching experience. Students may select an internship which provides a work-study program in an education-related setting. Overseas student teaching opportunities are another available option.

The major in secondary education leads to a Bachelor of Science in Education and certification to teach grades seven through 12.

Required Courses

Some courses which satisfy the university's 54-semester hour general education requirement are included in the course listings for the individual areas of specialization under secondary education.

Requirements for the Major Secondary Education (7-12) include a total of 35 semester hours in required core courses, plus courses specified for various specializations. Students should consult their advisor to plan a course of study. The balance of courses to satisfy the university's 128-hour requirement for a bachelor's degree, come from free electives.

- 60.201 Field Studies in Education I
- 60.204 Educational Computing and Technology
- 60.291 Principles of Teaching
- 60.301 Field Studies in Education II
- 60.311 Educational Measurements and Evaluation
- 60.497 Teaching in Education: First Experience
- 60.498 Teaching in Education: Second Experience
- 60.251 Psychological Foundations of Education or 48.251 Psychological Foundations of Education

- 60.393 Social Foundations of Education or
- 60.406 Multicultural Education

- 65.374 Teaching reading in the Academic Subjects

Choose one from the following five courses:

- 65.351 Teaching Communication in the Secondary School
- 65.352 Teaching Mathematics in the Secondary School
- 65.353 Teaching Science in the Secondary School
- 65.355 Teaching Social Studies in the Secondary School
- 65.358 Teaching Foreign Language in the Secondary School

Areas of Specialization in Secondary Education

- Each area of specialization develops scholarship basic to teaching the content subject. Course requirements are enumerated under the area of specialization. *Note: in May, 1999, a specialization area in German was created; contact the adviser for requirements.*

Secondary Education Specialization Areas

Each area of specialization develops scholarship basic to teaching the content subject in secondary schools and course requirements listed here are in addition to those required of secondary education majors at Bloomsburg University.

Biology

- 50.110 Biology of Animals
 - 50.120 Biology of Plants
 - 50.233 Human Genetics
 - 50.242 Biology of Microorganisms
 - 50.271 Cell Biology
 - 50.332 Genetics
 - 50.351 General Ecology
 - 50.380 Biology Seminar
 - 52.115 Fundamentals of Inorganic Chemistry
 - 52.131 Fundamentals of Organic Chemistry
 - 52.216 Chemical Principles and Measurements
 - 52.341 Biochemistry
- Choose one from the following three courses:
- 51.101 Physical Geology
 - 51.255 Meteorology
 - 51.259 Oceanography

Choose one from the following four courses:

- 54.103 Principles of Physical Science
 - 54.105 Energy: Sources and Environmental Effects
 - 54.106 The Science of Sound
 - 54.110 Introduction to Astronomy
- 9 semester hours of elective courses in biology including 3 semester hours in a field course

Choose one from the following two courses:

- 53.113 Pre-Calculus
- 53.123 Essentials of Calculus

Choose one from the following two courses:

- 53.141 Introduction to Statistics
- 48.160 Basic Statistics

Chemistry

- 52.115 Fundamentals of Inorganic Chemistry
 - 52.131 Fundamentals of Organic Chemistry
 - 52.216 Chemical Principles and Measurements
 - 52.232 Intermediate Organic Chemistry
 - 52.321 Analytical Chemistry I
 - 52.341 Biochemistry
 - 52.361 Physical Chemistry I
 - 52.362 Physical Chemistry II
 - 52.281 Introduction to Scientific Literature
 - 54.211 General Physics I
 - 54.212 General Physics II
 - 53.125 Analysis I
 - 53.126 Analysis II
 - 53.225 Analysis III
- Choose one from the following two courses:
- 50.110 Biology of Animals
 - 50.120 Biology of Plants
- Choose one pair from the following two sets:
- 51.101 Physical Geology and 51.111 Physical Geology Laboratory or
 - 51.102 Historical Geology and 51.112 Historical Geology Laboratory

Communications/Media

- 20.302 Advanced Composition
- 20.311 Structure of English
- 20.312 History of the English Language
- 26.102 Introduction to Theater Arts
- 27.315 Social Foundations of Mass Communications

One course in World Literature

27.310 Media Law

27.360 Mass Media Processes and Effects

27.420 Audience Analysis

Choose two courses from:

27.110 Mass Communication and the

Popular Arts

27.275 Cinema Appreciation

27.230 Newswriting

27.251 PR: Theory and Practice

27.261 Principles of Advertising

Choose three courses from:

27.271 Media Operations

27.334 Editing

27.352 Publicity and Public Relations

27.371 Broadcast Journalism

27.482 Mass Communications Seminar

27.485 RTF Authorship Theory and Practice

Communication/Speech

20.302 Advanced Composition

20.311 Structure of English

20.312 History of the English Language

one course in World Literature

one course in Mass Communications

25.104 Interpersonal Communication

25.206 Oral Interpretation of Literature

Choose one of the following three courses:

25.205 Rhetorical Theory

25.215 Communication Theory

25.315 Persuasion

Choose one of the following four courses:

26.211 Theater Production/Stagecraft

26.215 History of the Theater

26.316 Play Directing

26.416 Modern Theater

and four courses selected from the

Communications Studies course

listing.

Note: 25.103 Public Speaking is required for secondary education majors and is listed among the general education courses for communication. One semester of 25.108 Forensic Practicum also is required and, therefore, may not be applied toward this requirement. Speech Communication majors must participate in the Bloomsburg University Forensic Society for a minimum of one semester under 25.108. A grade of pass/fail is issued.

Communication/Theater

20.302 Advanced Composition

20.311 Structure of English

20.312 History of the English Language

one course in World Literature

one course in Mass Communications

25.104 Interpersonal Communication

25.206 Oral Interpretation of Literature

26.102 Introduction to Theater Arts

26.211 Theater Production/Stagecraft

Choose one from the following three

courses:

26.215 History of the Theatre

26.316 Play Directing

26.416 Modern Theater

plus four courses from the Theatre Arts

course listing.

Note: 25.103 Public Speaking is required for secondary education majors and is listed among the general education courses for communication. One semester of 25.108 Forensic Practicum also is required and, therefore, may not be applied toward this requirement. Speech Communication majors must participate in the Bloomsburg University Forensic Society for a minimum of one semester under 25.108. A grade of pass/fail is issued.

Earth and Space Science

50.101 General Biology

51.101 Physical Geology

51.102 Historical Geology

51.105 Environmental Geology

51.111 Physical Geology Laboratory

51.112 Historical Geology Laboratory

51.255 Meteorology

51.259 Oceanography

Choose one from the following six courses:

52.115 Fundamentals of Inorganic

Chemistry

52.131 Fundamentals of Organic Chemistry

52.216 Chemical Principles and

Measurements

54.111 Introductory Physics I

54.112 Introductory Physics II

53.175 Introduction to Computer Science

Choose one from the following five courses:

53.112 Trigonometry

53.113 Pre-Calculus

53.123 Essentials of Calculus

53.125 Analysis I

53.126 Analysis II

Choose three from the following 11 courses:

51.105 Environmental Geology

51.261 Mineralogy

- 51.262 Petrology
- 51.355 Synoptic Meteorology
- 51.360 Introduction to Paleontology
- 51.365 Geomorphology
- 51.369 Structural Geology
- 51.370 Hydrology
- 51.451 Field Techniques in Earth Science
- 51.468 Stratigraphy and Sedimentation
- 51.470 Groundwater Hydrology

Choose a maximum of 3 semester hours in marine science courses offered by the Marine Science Consortium.

English

20.203 Approaches to Literary Study is required in place of 20.200, 20.201 and also is required of those students who have taken 20.104. Required courses, totaling 30 semester hours, are:

Choose one from the following three courses:

- 20.226 European Literature I
- 20.236 American Literature I
- 20.237 American Literature II

Choose one from the following two courses:

- 20.246 British Literature I
- 20.247 British Literature II

Choose one from the following two courses:

- 20.256 Non-Western Literature I
- 20.257 Non-Western Literature II

Choose one from the following six courses:

- 20.302 Advanced Composition
- 20.306 Theory and Practice of Writing
- 20.311 Structure of English
- 20.312 History of the English Language
- 20.363 Shakespeare

Elective courses account for 12 semester hours and are drawn from 300 or 400 level English courses; only one may be from 20.300 or 20.301 or 20.303.

French

- 10.203 French III
- 10.204 French IV
- 10.205 Applied Phonetics and Pronunciation
- 10.206 Structure of the French Language
- 10.207 Conversation: French Daily Life and Customs
- 10.211 Foundations of French Culture and Civilization
- 10.325 10.402 Contemporary Issues in Francophone Media
- 10.422 Masterpieces of French Literature

- 10.423 Black Francophone Writers and Culture

Choose one from the following two courses:

- 20.311 Structure of English
- 20.411 Modern Linguistic Theory
- Electives: 10.281 Special Topics
- 10.290 French Studies Abroad
- 10.295 Art and Culture of France
- 10.309 Commercial French
- 10.331 Selected 20th Century Writers
- 10.401 Advanced French Language
- 10.409 Commercial French II
- 10.490 Independent Study in French

Note: A student exempted from a required course must substitute the course in

child psychology and anthropology in this curriculum.

General Science

- 50.110 Biology of Animals
- 50.120 Biology of Plants
- 52.115 Fundamentals of Inorganic Chemistry

Choose one from the following two courses:

- 52.131 Fundamentals of Organic Chemistry
- 52.216 Chemical Principles and Measurements

Choose one from the following two courses:

- 54.111 Introductory Physics I
- 54.211 General Physics I

Choose one from the following six courses:

- 54.112 Introductory Physics II
- 54.212 General Physics II
- 51.101 Physical Geology
- 51.102 Historical Geology
- 51.111 Physical Geology Laboratory
- 53.112 Historical Geology Laboratory
- Choose one from the following two courses:
- 53.141 Introduction to Statistics
- 53.241 Probability and Statistics
- 28.303 Philosophy of Science (recommended)
- 42.250 History of Science (recommended)
- 54.110 Introduction to Astronomy

16 semester hours of 200-level or above science courses.

Mathematics

- 53.125 Analysis I
- 53.126 Analysis II
- 53.185 Discrete Mathematics
- 53.225 Analysis III

- 53.226 Analysis IV
- 53.231 College Geometry
- 53.241 Probability and Statistics
- 53.310 Introduction to Abstract Algebra
- 53.314 Linear Algebra
- 53.360 Number Theory
- 56.121 Computer Science I

9 semester hours in courses which must include at least one computer science course numbered 56.122 or higher and at least one mathematics course numbered 53.271 or higher.

Physics

- 54.211 General Physics I
- 54.212 General Physics II
- 54.302 Mechanics: Dynamics
- 54.310 Modern Atomic Physics
- 54.314 Electricity and Magnetism
- 54.315 Electronics
- 54.318 Optics
- 54.400 Advanced Physics Laboratory
- 51.101 Physical Geology
- 52.115 Fundamentals of Inorganic Chemistry
- 52.216 Chemical Principles and Measurements
- 51.102 Historical Geology
- 53.125 Analysis I
- 53.126 Analysis II
- 53.225 Analysis III
- 53.322 Differential Equations

Select an elective course in physics totaling 3 semester hours.

Spanish

- 12.203 Spanish III
 - 12.204 Spanish IV
 - 12.205 Phonetics: Theory and Practice
 - 12.206 Structure of the Spanish Language
 - 12.207 Conversation: Hispanic Daily Life and Customs
 - 12.211 Spanish Culture and Civilization
 - 12.212 Spanish-American Culture and Civilizations
 - 12.214 The Hispanic World Today
 - 12.250 Spanish for Spanish Speakers
 - 12.325 12.331 Selected 20th Century Writers
 - 12.402 Issues in the Hispanic Media
 - 12.421 Hispanic Prose
- Choose one from the following two courses:
- 20.311 Structure of English
 - 20.411 Modern Linguistic Theory

Note: A student exempted from a required course must substitute the course with an advanced elective in Spanish. Students also should include a course in child psychology and anthropology in their curriculum.

Comprehensive Social Studies

Anthropology (Comprehensive Social Studies)

- 46.200 Principles of Cultural Anthropology
- 46.210 Prehistoric Archaeology
- 46.220 Human Origins
- 46.340 Native North America
- 46.390 Socialization of the Child
- 46.440 Language and Culture
- 45.211 Principles of Sociology
- 40.211 Principles of Economics I
- 40.212 Principles of Economics II
- 42.112 Origins of the Modern World
- 42.113 The Modern World
- 42.121 United States Historic Survey: Colonial Period to 1877
- 42.122 United States Historic Survey: 1877 to the Present
- 41.101 World Physical Geography
- 41.102 World Cultural Geography
- 44.101 Elements of Political Science
- 44.120 United States Government

Economics (Comprehensive Social Studies)

- 46.200 Principles of Cultural Anthropology
 - 45.211 Principles of Sociology
 - 40.211 Principles of Economics I
 - 40.212 Principles of Economics II
 - 40.311 Intermediate Micro-Theory and Managerial Economics
 - 40.312 Intermediate Macroeconomic Theory
 - 40.313 Labor Economics
 - 40.422 Contrasting Economics or 40.423 History of Economic Thought
- 9 semester hours from the following eight courses:
- 40.315 Business and Government
 - 40.316 Urban Economics
 - 40.410 Public Finance
 - 40.413 Money and Banking
 - 40.415 Environmental Economics
 - 40.424 Economic History of the Western World
 - 40.433 International Economics
 - 40.434 Economic Growth of Underdeveloped Areas

Choose one from the following five courses:

- 42.112 Origins of the Modern World
- 42.113 The Modern World
- 42.121 United States Historic Survey:
Colonial Period to 1877
- 42.122 United States Historic Survey: 1877
to the Present
- 42.222 Business History of the United States
- 41.101 World Physical Geography
- 41.102 World Cultural Geography
- 44.101 Elements of Political Science
- 44.120 United States Government

Geography (Comprehensive Social Studies)

- 46.200 Principles of Cultural Anthropology
- 45.211 Principles of Sociology
- 40.211 Principles of Economics I
- 40.212 Principles of Economics II
- 42.112 Origins of the Modern World
- 42.113 The Modern World
- 42.121 United States Historic Survey:
Colonial Period to 1877
- 44.101 Elements of Political Science
- 44.120 United States Government

48.101 General Psychology

- 41.101 World Physical Geography
- 41.102 World Cultural Geography
- 41.105 Environmental Issues and Choices

Choose one of the following two courses:

- 42.122 United States Historic Survey: 1877
to the Present or 42.222 Business
History of the United States

18 semester hours in geography

3 semester hours taken from economics, sociology, political science or history or 48.210 Life Span Psychology

History (Comprehensive Social Studies)

- 46.200 Principles of Cultural Anthropology
- 45.211 Principles of Sociology
- 40.211 Principles of Economics I
- 41.101 World Physical Geography
- 41.102 World Cultural Geography
- 44.101 Elements of Political Science
- 44.120 United States Government
- 42.112 Origins of the Modern World
- 42.113 The Modern World
- 42.121 United States Historic Survey:
Colonial Period to 1877
- 42.122 United States Historic Survey: 1877
to the Present
- 42.133 Ancient and Medieval Worlds
- 42.398 Research and Writing Skills

Choose one from the following four courses:

- 42.141 The Modern Far East
- 42.142 Latin America: From European
Colonization to the Present
- 42.143 Black Africa
- 42.144 Islamic and Hindu Worlds: Middle
East, India and Malasia

3 semester hours from any 300-400 level course in U.S. history

3 semester hours from any 300-400 level course in western civilization or European history covering the period through 1815.

3 semester hours from any 300-400 level course in European history covering the period since 1789.

Philosophy (Comprehensive Social Studies)

- 46.200 Principles of Cultural Anthropology
- 45.211 Principles of Sociology
- 40.211 Principles of Economics I
- 40.212 Principles of Economics II
- 42.112 Origins of the Modern World
- 42.113 The Modern World
- 42.121 United States Historic Survey:
Colonial Period to 1877
- 42.122 United States Historic Survey: 1877
to the Present

41.101 World Physical Geography

- 41.102 World Cultural Geography
- 44.101 Elements of Political Science
- 44.120 United States Government
- 28.111 Introduction to Philosophy
- 28.212 Logic

Choose one course from the following two courses:

- 28.220 Ethics
- 28.290 Medical Ethics

Choose one course from the following two courses:

- 28.224 Descartes to Kant
- 28.351 Theory of Knowledge

One elective course from Philosophy

Political Science (Comprehensive Social Studies)

- 46.200 Principles of Cultural Anthropology
- 45.211 Principles of Sociology
- 40.211 Principles of Economics I
- 40.212 Principles of Economics II
- 41.101 World Physical Geography
- 41.102 World Cultural Geography
- 44.101 Elements of Political Science

- 44.120 United States Government
- 44.160 Nations, States and Governments
- 44.210 Introduction to Political Theory
- 44.280 Introduction to International Relations
- 42.112 Origins of the Modern World
- 42.113 The Modern World
- 42.121 United States Historic Survey:
Colonial Period to 1877 or 42.122
United States Historic Survey: 1877
to the Present

and three courses selected from:

- 44.207 Ethics, Politics and Public Policy
- 44.363 Soviet and Post-Soviet Politics
- 44.366 Political Systems of Western Europe
- 44.376 Government and Politics of the
Middle East
- 44.440 The President and Congress
- 44.448 The Judicial Process
- 44.452 State and Local Government Politics
- 44.487 International Law and Organization

*Note: 44.207 Ethics, Politics and Public Policy
can be used to satisfy the values
requirement in general education
requirements.*

Psychology (Comprehensive Social Studies)

- 46.200 Principles of Cultural Anthropology
- 45.211 Principles of Sociology
- 40.211 Principles of Economics I
- 40.212 Principles of Economics II
- 42.112 Origins of the Modern World
- 42.113 The Modern World
- 42.121 United States Historic Survey:
Colonial Period to 1877
- 42.122 United States Historic Survey: 1877
to the Present
- 42.222 Business History of the United States
- 41.101 World Physical Geography
- 41.102 World Cultural Geography
- 44.101 Elements of Political Science
- 44.120 United States Government
- 48.101 General Psychology
- 48.160 Basic Statistics
- 48.251 Psychological Foundations of
Education
- 48.281 Experimental Psychology:
Methodology
- 48.451 Laboratory Training in Group
Processes
- 48.476 Principles of Behavior Modification

additional courses in Psychology totaling 6
semester hours.

Sociology (Comprehensive Social Studies)

- 46.200 Principles of Cultural Anthropology
- 45.211 Principles of Sociology
- 40.211 Principles of Economics I
- 40.212 Principles of Economics II
- 42.112 Origins of the Modern World
- 42.113 The Modern World
- 42.121 United States Historic Survey:
Colonial Period to 1877
- 42.122 United States Historic Survey: 1877
to the Present
- 41.101 World Physical Geography
- 41.102 World Cultural Geography
- 44.101 Elements of Political Science
- 44.120 United States Government
- 45.133 Introduction to Social World and
Social Welfare or 45.236 Child
Welfare

- 45.211 Principles of Sociology
 - 45.213 Contemporary Social Problems
- Choose one from the following two courses:
- 45.216 Urban Sociology
 - 45.462 Sociological Theory
- Choose one from the following two courses:
- 45.231 Marriage and Family
 - 45.318 Social Stratification

6 semester hours taken from the preceding
sociology courses not previously
taken.

Faculty Profiles

- C. Meade Beers, assistant professor, B.A., M.Ed.,
Ph.D., University of Pittsburgh
- Neil L. Brown, assistant professor - B.S., Kutztown
State College; M.Ed., Lehigh University; Ed.D.,
Temple University
- Robert L. Clarke, assistant professor - B.A., King's
College; M.A., Seton Hall University; Ed.D.,
University of Pennsylvania
- Henry D. Dobson, professor - B.S., Bloomsburg
University; M.S., Syracuse University; Ph.D.,
The Pennsylvania State University
- M. Hussein Fereshteh, associate professor - B.A.,
Teacher University of Tehran; M.P.A., Univer-
sity of Hartford; Ph.D., The University of Con-
necticut
- Robert E. Gates, associate professor - B.S. Univer-
sity of Maine at Farmington; M.Ed., Ed.D., Uni-
versity of Louisville

Mary G. Harris, professor - B.A., Macalester College; M.A., California Lutheran College; Ed.D., University of Southern California

W. Francis Keating, assistant professor - A.B., Kings College; M.S., Ed.D., State University of New York at Albany

Raymond S. Pastore, assistant professor - B.S., California University of Pennsylvania; M.S., St. Bonaventure University; Ph.D., The Pennsylvania State University

Donald L. Pratt, assistant chairperson, associate professor - B.S., Utica College of Syracuse University; M.Ed., St. Lawrence University; Ph.D., University of South Florida

Shelley C. Randall, assistant professor - B.S., University of Michigan; M.A., Wayne State University; Ph.D., University of Pennsylvania

Charles Starkey, assistant professor - B.S., M.Ed., Charleston Southern University; Ph.D., Virginia Tech

Viola C. Supon, assistant professor - B.S., Bloomsburg State Teachers College; M.A., Trenton State University; Ed.D., Temple University

David E. Washburn, professor - B.A., M.Ed., Ph.D., University of Arizona; postdoctoral certification in multicultural education, University of Miami

Mary Alice Wheeler, assistant professor - B.A., University of Denver; M.S., Georgetown University; Ph.D., University of Pennsylvania

Patricia Wolf, associate professor - B.A., Morehead University; M.A., Duquesne University; Ph.D., University of Pittsburgh

SPE (70)**Special Education**

Administered by: Department of Exceptionality Programs

College: Professional Studies

Campus address: 101B Navy Hall

Telephone number: (570) 389-4119

Fax number: (570) 389-3980

TDD number: (570) 389-4119

Program coordinator: Sheila Jones

Department chair: Carroll J. Redfern

Degree awarded: Bachelor of Science in Education

About the Program

The program in special education leads to certification for teachers to teach mentally and/or physically handicapped individuals (learning disabled, mentally retarded, seriously emotionally disturbed and physically handicapped) in grades K-12. Students may also acquire a concentration for the education of the deaf/hard of hearing.

Students enrolled in special education have the opportunity to student teach in the following settings: public schools, intermediate units, approved private schools, preschools, state centers, adjudicated environments and hospitals. Student teaching placements are in the following counties: Carbon, Columbia, Cumberland, Dauphin, Lackawanna, Lehigh, Snyder, Union and Sullivan.

All students are assigned to an adviser and receive close guidance in university classrooms and field experiences in public schools. The department prides itself on accessibility of students to faculty.

Factors suggesting the potential for success at Bloomsburg include acceptance of individuals and the ability to work with acquired skills, the ability to deal with diversity and differences, strong task commitment, affectiveness and the ability to deal with individual needs.

Bloomsburg's faculty, among the largest in Pennsylvania, displays a broad spectrum of specializations that provide students with a thorough and diverse learning environment. Faculty specializations include technology, early intervention, mild disabilities, the severe and profoundly disabled, behavioral disorders, assessment, transition, language and methodology.

Most recent placement statistics average between 98 and 100 percent.

Required Courses

General Education Requirements - The university requires 54 hours of general education requirements, some of which are specifically required for this major. Core courses designated by the departments as applicable to the general education requirements may be elected in partial fulfillment of that requirement. The following general education courses are required for teaching mentally and/or physically disabled individuals:

20.101 Composition I or 20.201

Composition II (or any of the writing intensive literature courses)

Those testing out of 20.101 or 20.201 will schedule 20.104 Honors

Composition and are required to take only six of the nine hours required under Communication

25.103 Public Speaking or 25.104

Interpersonal Communication

48.101 General Psychology

48.210 Life-Span Psychology

50.101 General Biology I

05.231 First Aid and Safety

53.141 Introduction to Statistics or 48.160
Basic Statistics

Requirements for the Major - A total of 51 semester hours is required for a major in special education including professional education courses, those required for special education and electives.

Professional Education courses include:

- 60.251 Psychological Foundations in Education or 48.251 Psychological Foundations in Education
- 60.393 Social Foundations of Education or 60.406 Multicultural Education
- 62.302 Teaching of Science in the Elementary School or 62.390 Teaching Social Studies in the Elementary School
- 62.371 Teaching Reading in the Elementary School
- 62.398 Teaching Mathematics in the Elementary School

Choose one of the following four courses:

- 62.373 Diagnostic and Inclusive Practices
- 74.305 Introduction to Instructional Methods for the Deaf/Hard of Hearing (reserved for Deaf/Hard of Hearing area of concentration only).
- 60.375 Teaching the Reluctant Reader
- 65.374 Teaching Reading in Academic Subjects

Special Education Courses include:

- 70.101 Introduction to the Exceptional Individual
- 70.202 Technology for Exceptionalities
- 70.206 Introduction to Early Intervention
- 70.240 Foundations in Special Education
- 70.250 Behavior Disorders
- 70.340 Educating Individuals with Moderate/Severe Disabilities
- 70.353 Assessment and Planning
- 70.357 Vocational Programming
- 70.401 Student Teaching With Exceptional Individuals
- 70.433 Language Arts for Students with Special Needs
- 70.450 Methods for Elementary Special Education
- 70.451 Methods for Secondary Special Education
- 70.461 Problems in Special Education

Elective Courses - A total of 12 semester hours may be taken as electives for this major. These

courses include:

- 70.255 Experience with Exceptional Individuals
- 70.375 Individual Project
- 72.152 Introduction to Communication Disorders
- 74.153 Introduction to Sign Language

Students may opt to take any four hours of electives to complete the 128-semester hour require for a bachelor's degree.

A Typical Plan of Study

Students entering the university who have declared special education as their major are advised by faculty in the Department of Exceptionalities. They begin taking courses in the major in the first semester of the freshman year and generally enroll in at least one or more special education course every semester thereafter.

Adjustments are made in the above sequence of courses which reflect the needs of students who desire to take less or more semester hours of work than the average student. Transfers (internal and external), readmitted students, adult learners and part-time students make it necessary to make adjustments in scheduling. Students who have the necessary requirements complete their student teaching the first semester and return to campus to complete their general education requirements for graduation. Students who enroll in summer school could possibly graduate early or reduce the number of semester hours taken during the academic year. Students seeking dual certification (Special Education/Elementary Education or Early Childhood Education) often enroll in summer sessions.

Although majors should work with their advisers to determine a specific plan of study, an example showing all but general education requirements follows:

Freshman Year

Fall Semester

- 70.101 Introduction to Exceptional Individuals

Spring Semester

- 70.240 Foundations in Special Education
- 70.202 Technology for Exceptionalities
- 60.251 Psychological Foundations of Education

Sophomore Year

Fall Semester

- 70.250 Behavior Disorders
- 70.206 Introduction to Early Intervention

Junior Year

Fall Semester

70.357 Vocational Programming

70.340 Educating Individuals with
Moderate/Severe Disabilities

60.393 Social Foundations of Education

62.398 Teaching of Mathematics in the
Elementary School62.302 Teaching Science in the Elementary
School

Spring Semester

70.433 Language Arts for Students with
Special Needs70.450 Elementary Methods for Individuals
with Mild Disabilities62.371 Teaching Reading in the Elementary
School*Senior Year*

Fall Semester

70.353 Assessment and Planning

70.451 Methods for Secondary Special
Education

Spring Semester

70.401 Student Teaching With Exceptional
Individuals

70.461 Problems in Special Education

*Area of Concentration in Education of the
Deaf/Hard of Hearing*

Special education students may choose to take an area of concentration in education of the deaf/hard of hearing. The undergraduate curriculum in education of the deaf/hard of hearing lays the foundation for the training and education needed to prepare classroom teachers and itinerant hearing therapists to work in educational settings with deaf/hard of hearing children and adults. Students supplement the curriculum for their majors with an area of concentration in education of the deaf/hard of hearing that requires a minimum of 18 semester hours.

Certification to teach deaf/hard of hearing students in school programs is granted by the Pennsylvania Department of Education upon completion of a related graduate program.

All applicants to the graduate program in Education of the Deaf/Hard of Hearing must have completed the following courses. Students without an education background will need to take five education courses agreed upon by the curriculum coordinator in education of the deaf/hard of hearing.

Required Courses

The following is a suggested time sequence for courses required in the area of concentration of the deaf/hard of hearing.

*Freshman Year*72.152 Introduction to Communication
Disorders74.201 History, Education and Guidance of
the Deaf/Hard of Hearing

74.153 Introduction to Sign Language

Sophomore Year

72.200 Introduction to Audiology

74.154 American Sign Language I

Junior Year

A statistics course

74.305 Introduction to Instructional
Methods for the Deaf/Hard of
Hearing

74.155 American Sign Language II

Senior Year

72.450 Clinical Observation

*Dual Certification: Elementary Education
and Special Education*

A dual certification in Elementary Education and Special Education leads to elementary education certification to teach kindergarten through sixth grade (K-6) and special education certification to teach mentally and/or physically handicapped individuals (learning disabled, mentally retarded, seriously emotionally disturbed and physically handicapped) in grades K-12.

The number of students accepted into the dual certification program is limited. Students may not declare a dual certification as an entering freshman, but must apply for admission after meeting minimum requirements. To apply, students must have 15 to 54 credits, a Bloomsburg University GPA of 2.5 or higher and a completed admission packet from elementary or special education. An interdepartmental admissions committee reviews applications and selects the most qualified applicants. Admission into the dual certification program is completed twice during the academic year (October and March). Students accepted into the dual certification program are advised by faculty in the Special Education Program.

This program requires 131 credits for graduation with eligibility for dual certification.

Required Courses

General Education Requirements - The university requires 54 hours of general education require-

ments, some of which are specifically required for this major. Core courses designated by the departments as applicable to the general education requirements may be elected in partial fulfillment of that requirement. The following general education courses are required:

0.101 Composition I or 20.201 Composition II (or any of the writing intensive literature courses) Those testing out of 20.101 or 20.201 will schedule 20.104 Honors Composition and are required to take only six of the nine hours required under Communication

25.103 Public Speaking or 25.104 Interpersonal Communication

48.101 General Psychology

48.210 Life-Span Psychology

45.211 Sociology or 46.200 Anthropology

70.101 Introduction to the Exceptional Individual

53.141 Introduction to Statistics or 48.160 Basic Statistics

Any American history course

Any literature course

50.101 General Biology

54.103 Physical Science

53.201 Theory of Arithmetic

05.231 First Aid and Safety

Requirements for the Major - A total of 77 semester hours is required for dual certification in elementary education and special education

Professional Education courses include:

60.251 Psychological Foundations in Education or 48.251 Psychological Foundations in Education

60.393 Social Foundations of Education or 60.406 Multicultural Education

62.302 Teaching of Science in the Elementary School

62.390 Teaching Social Studies in the Elementary School

62.371 Teaching Reading in the Elementary School

62.398 Teaching Mathematics in the Elementary School

62.373 Diagnostic and Inclusive Practices

05.311 Methods and Materials in Elementary School Physical Education or 05.320 Health and Safety in Elementary School

60.291 Principles of Teaching

62.310 Teaching Fine Arts

70.202 Technology for Exceptional Individuals

70.206 Introduction to Early Intervention

70.240 Foundations in Special Education

70.250 Behavior Disorders

70.340 Educating Individuals with Moderate/Severe Disabilities

70.353 Assessment and Planning

70.357 Vocational Programming

70.433 Language Arts for Students with Special Needs

70.450 Methods for Elementary Special Education

70.451 Methods for Secondary Special Education

70.461 Problems in Special Education Student teaching

Faculty Profiles

Kenneth P. Hunt, professor - B.S., State University of New York, College at Buffalo; M.Ed., State University of New York at Buffalo; Ph.D., University of Pittsburgh

Sheila Dove Jones, program coordinator, professor - B.S., M.Ed., Bloomsburg University of Pennsylvania; Ed.D., University of Missouri-Columbia

Michael J. Karpinski, associate professor - B.S., M.Ed., Bloomsburg University of Pennsylvania; Ph.D., University of Maryland

James K. Krause, assistant professor - B.S., M.S., Bloomsburg University of Pennsylvania

Darlene Perner, assistant professor - B.A., Knox College, M.Ed., State University of New York at Buffalo; Ed.D., University of British Columbia

Carroll J. Redfern, chairperson, professor - B.S., Johnson C. Smith University; M.Ed., Bloomsburg State College; Ed.D., Lehigh University

Cynthia N. Schloss, assistant professor - B.S., Illinois State University; M.S., Ph.D., Southern Illinois University-Carbondale

Philip J. Tucker, assistant professor - B.A., University of Notre Dame; M.Ed., Rhode Island College; Ed.D., University of Cincinnati

Joseph M. Youshock, professor - B.S., M.Ed., Bloomsburg University of Pennsylvania; Ed.D., Temple University

HRL (74)**Interpreting for the Deaf/Hard of Hearing**

Administered by: Department of Exceptionality Programs

College: Professional Studies

Campus address: Navy Hall

Bloomsburg University

Telephone number: (570) 389-4436

Fax number: (570) 389-3890

TDY: (570) 389-4864

Department chair: Carroll R. Redfern

Program coordinator: Ruth Ann Schomstein

Degree awarded: Bachelor of Science

About the Program

In one of just two four-year degree programs in the eastern United States, Bloomsburg University provides specialized training for individuals seeking to become American Sign Language interpreters. The objective for the sign language interpreting curriculum is to prepare individuals for certification from the Registry of Interpreters of the Deaf as professional interpreters between deaf/hard of hearing and hearing consumers within the context of a variety of settings: legal, educational, social or business.

In addition to learning to interpret, students in this program also receive strong education in aspects of deaf culture and related communication issues.

Bloomsburg's program draws additional strength from having a deaf individual as one of the two faculty assigned to the program, plus a graduate program in Education of the Deaf/Hard of Hearing and strong commitment to undergraduate and graduate programs in audiology that includes a professional regional clinic.

Graduates of this program enjoy a 100 percent placement rate in a variety of educational and vocational settings.

Individuals desiring to specialize in communication with the deaf have two options: a program leading to a bachelor of science in interpreting or a

minor in sign language. Individuals seeking entrance to the program must complete the following courses prior to formal admission to the program: 74.154 American Sign Language I and 74.155 American Sign Language II.

Required Courses

In addition to 54 semester hours in general education requirements, the major in interpreting requires 18 semester hours in American Sign Language training and 36 semester hours in interpreting; the remaining 20 semester hours required for a bachelor's degree come from elective courses.

American Sign Language training:

- 74.153 Introduction to Sign Language
- 74.154 American Sign Language I
- 74.155 American Sign Language II
- 74.254 The Deaf Culture
- 74.255 American Sign Language III
- 74.256 American Sign Language IV

Interpreting requirements:

- 25.103 Public Speaking
- 25.215 Communication Theory
- 72.152 Introduction to Communication Disorders
- 72.200 Introduction to Audiology
- 74.201 History, Education and Guidance of the Deaf/Hard of Hearing
- 74.201 Interpreting in the Educational Setting
- 74.301 Introduction to Interpreting for the Deaf
- 74.302 Interpreting English to American Sign Language
- 74.303 Transliterating English to Sign Language
- 74.304 Oral Interpreting/Transliterating
- 74.401 Sign to Voice Interpreting
- 74.415 Practicum in Interpreting

one additional course from the Code 25 course listing.

Elective Courses are to be chosen with the approval of an adviser and as required to meet the university's graduation requirement of 128 semester hours. Students may choose from the following free electives:

- 20.111 Language and Social Interaction
- 20.411 Modern Linguistic Theory
- 26.112 Fundamentals of Acting
- 28.220 Ethics
- 28.290 Medical Ethics
- 45.211 Principles of Sociology
- 45.213 Contemporary Social Problems
- 45.231 Marriage and Family
- 46.101 Introduction to Anthropology
- 46.200 Principles of Cultural Anthropology
- 46.440 Language and Culture
- 48.101 General Psychology
- 48.160 Basic Statistics
- 48.211 Child Psychology
- 48.321 Psychological Tests and Measurements
- 70.101 Introduction to the Exceptional Individual
- 72.460 Psycholinguistics
- 74.260 Interpreting in the Educational Setting

Area of Concentration in Education of Deaf/Hard of Hearing - Interpreting students may choose to take an area of concentration in education of the deaf/hard of hearing. The undergraduate curriculum in education of the deaf/hard of hearing lays the foundation for the training and education needed to prepare classroom teachers and itinerant hearing therapists to work in educational settings with deaf/hard of hearing children and adults. Students supplement the curriculum for their majors with an area of concentration in education of the deaf/hard of hearing that requires a minimum of 18 semester hours.

Certification to teach deaf/hard of hearing students in school programs is granted by the Pennsylvania Department of Education upon completion of a related graduate program.

All applicants to the graduate program in Education of the Deaf/Hard of Hearing must have completed the following courses. Students without

an education background will need to take five education courses agreed upon by the curriculum coordinator in education of the deaf/hard of hearing.

Required Courses

The following is a suggested time sequence for courses required in this program of study.

Freshman Year

- 72.152 Introduction to Communication Disorders
- 74.201 History, Education and Guidance of the Deaf/Hard of Hearing
- 74.153 Introduction to Sign Language

Sophomore Year

- 72.200 Introduction to Audiology
- 74.154 American Sign Language I

Junior Year

- A statistics course
- 74.305 Introduction to Instructional Methods for the Deaf/Hard of Hearing
- 74.155 American Sign Language II

Senior Year

- 72.450 Clinical Observation

Elective Courses

A total of 12 semester hours is taken in elective courses. Courses include:

- 74.155 American Sign Language II
- 74.254 The Deaf Culture
- 74.255 American Sign Language III
- 74.256 American Sign Language IV

Requirements for the Minor in Sign Language

Students from any academic discipline may declare a minor in sign language. The minor consists of 18 semester hours and requires the following courses:

- 74.153 Introduction to Sign Language
- 74.154 American Sign Language I
- 74.155 American Sign Language II
- 74.254 The Deaf Culture
- 74.255 American Sign Language III
- 74.256 American Sign Language IV

Faculty Profiles

Ruth Ann Schornstein, assistant professor - B.A., Kean College of New Jersey; M.S., Western Maryland College

NUR (82)**Nursing**

Administered by: Department of Nursing

College: Professional Studies

**Campus address: 3109 McCormick Center for Human
Services**

Telephone number: (570) 389-4423 or 4426

Fax number: (570) 389-3894

**Department chair, e-mail: M. Christine Alichnie
(cmalic@bloomu.edu)**

Degree awarded: Bachelor of Science in Nursing

About the Program

Recognized as one of the leading four-year nursing programs statewide, Bloomsburg prepares students for a wide range of careers in home care, occupational health, rehabilitation, trauma, clinical specialties, informatics and case management and additionally offers the increasingly valuable path toward a master of science in nursing through its related graduate study program.

As the realm of modern health care becomes increasingly complex, this rigorous and demanding program requires potential students to have exceptional leadership and time management skills, self assurance and independent critical thinking. Other factors suggesting potential for success at Bloomsburg include a strong background in sciences and algebra as well as very high reading comprehension skills and a strong work ethic.

Students enjoy a strong placement rate and continue with graduate studies after initial work experiences, much of which is outside of traditional hospital settings.

The goals of the BSN program are to assist students to:

1. attain the competencies required of the generalist practitioner, including application of relevant knowledge, skills, values and other

professional behaviors designed to help the person attain an optimal level of functioning.

2. collaborate with others to promote health in a diverse and multicultural society.

3. value and engage in activities designed to enhance personal growth and promote professional role development.

The Bachelor of Science in Nursing (BSN) is awarded to those students who successfully complete the requirements for the degree. Degree recipients (non-R.N.) are then eligible to take the NCLEX licensure examination administered by the Board of Nursing in the state of their choice.

Students must assume responsibility for their own travel to both inpatient and outpatient/community clinical agencies. Travel may vary from one mile to approximately 40 miles, depending on the nature of clinical experiences.

Specific policies govern admission, performance standards, good standing, retention and licensure.

Generic Students

"Generic" is a term used by accrediting agencies and the Pennsylvania State Board of Nursing to designate students who are currently not registered nurses. Four types of candidates fall into the generic category: freshman candidates, external transfer candidates, internal transfer candidates and second degree candidates.

Advanced Placement

The faculty in the department of nursing have approved four mechanisms to petition for advanced placement or credit by examination, as outlined in an articulation model available from the Department of Nursing:

1. College Level Equivalency Examination Program (CLEP). All students are eligible to pursue CLEP testing for Bloomsburg University credit. CLEP enables Bloomsburg University to grant course credit for scores earned on written examinations provided by the College Entrance Examination Board. Information is available from the Coordinator of Testing.

2. Credit by Examination (faculty prepared examinations). Once students have been admitted to the university they may earn credit in selected science, general education or nursing courses by petitioning for the privilege of establishing credit through a comprehensive exam instead of through registration and class attendance. Eligibility to petition is based upon student presentation or evidence of adequate experience with the course content through experience other than college attendance or through independent study of the course content. In the Department of Nursing, the courses which the student may petition for credit by examination are 82.211 Nutrition, 82.212 Pharmacology, 82.214 Health Assessment and 82.215 Pathophysiology for Nursing Practice. Students wishing to petition for credit in departments other than nursing must contact the chairperson of the respective department. Study guides are available from course faculty (nursing, biological and allied health science, etc.) to facilitate review for these examinations.

3. Articulation model and/or NLN Mobility Profile II: 36 semester hours of advanced placement may be earned by R.N. students through either advanced placement data on the department's articulation model or successful completion of four NLN Mobility Profile II tests. Study guides for the NLN Mobility Profile II tests may be obtained from the office of the department of nursing. These examinations must be completed by the time the R.N. is ready to enter the junior level nursing courses.

4. Transfer course credits. Please refer to the transfer policies in the Admissions section. A student applying to transfer courses must fulfill the provisions of residence requirements and graduation requirements.

Required Courses

A total of 61 semester hours is required for a major in nursing. In addition to the major, all students must satisfy 54 semester hours of general education requirements; a bachelor's degree at Bloomsburg requires a total of 128 semester hours of study. A number of the prescribed courses in the physical sciences and social sciences, required as prerequisites for the nursing curriculum, may also apply toward general education requirements.

Requirements for the Major - Generic Students

Prerequisite courses

- 48.101 General Psychology
- 48.210 Life-Span Psychology
- 50.173 Anatomy and Physiology I
- 50.174 Anatomy and Physiology II
- 50.240 Introductory Microbiology
- 52.101 Introductory Chemistry
- 52.108 Physiological Chemistry

Choose one of the following three courses:

- 45.211 Principles of Sociology
- 45.213 Contemporary Social Problems
- 46.200 Principles of Cultural Anthropology

Professional Courses

- 82.210 Professional Nursing
- 82.211 Nutrition
- 82.212 Pharmacology
- 82.213 Foundations of Nursing Practice
- 82.214 Health Assessment
- 82.215 Pathophysiology for Nursing Practice
- 82.306 Introduction to Nursing Research (a statistics course, either 48.160 Statistics or 53.141 Introduction to Statistics is prerequisite)
- 82.310 Family Nursing
- 82.311 Adult Health I
- 82.312 Maternal and Child Health Nursing
- 82.410 Community Health Nursing
- 82.411 Psychiatric/Mental Health Nursing
- 82.412 Adult Health II
- 82.414 Nursing Management/Leadership

Elective Courses - Additional courses must be taken as necessary to complete the minimum graduation requirement of 128 semester hours.

Requirements for the Major - R.N. Students

Prerequisite courses:

- 48.101 General Psychology
- 48.210 Life-Span Psychology
- 50.173 Anatomy and Physiology I
- 50.174 Anatomy and Physiology II

- 50.240 Introductory Microbiology
- 52.101 Introductory Chemistry
- 52.108 Physiological Chemistry
- Choose one of the following three courses:
- 45.211 Principles of Sociology
- 45.213 Contemporary Social Problems
- 46.200 Principles of Cultural Anthropology
- Professional Courses:
- 82.211 Nutrition
- 82.212 Pharmacology
- 82.214 Health Assessment
- 82.215 Pathophysiology for Nursing Practice
- 82.305 Role Development for the Nurse Generalist (RN)
- 82.306 Introduction to Nursing Research (a statistics course, either 48.160 Statistics or 53.141 Introduction to Statistics is prerequisite)
- 82.310 Family Nursing
- 82.410 Community Health Nursing
- 82.414 Nursing Management/Leadership in Nursing

Elective Courses - Additional courses must be taken as necessary to complete the minimum graduation requirement of 128 semester hours.

Faculty Profiles

- M. Christine Alichnie, R.N., chairperson, professor, Nursing - B.S.N., University of Pittsburgh; M.S.Ed., Wilkes College; M.S.N., Ph.D., University of Pennsylvania
- Jean E. Berry, R.N., assistant professor, Nursing - B.S.N., Georgetown University; M.S.N., University of Pennsylvania
- Julia A. Bucher, R.N., associate professor, Nursing - B.S.N.; University of Delaware; M.S.N., University of Washington; M.P.M., Seattle University; Ph.D., The Pennsylvania State University
- Robert L. Campbell, R.N., associate professor, Nursing - Diploma, Robert Packer Hospital School of Nursing; B.S.N., University of Pittsburgh; M.N., University of Washington
- Mary Ann Cegielsky, R.N., assistant professor, Nursing - Diploma, Ashland State Hospital School of Nursing; B.S.N., The Pennsylvania State University; M.S.N., Villanova University
- Noreen Chikotas, R.N., assistant professor - Diploma, Pottsville Hospital School of Nursing; B.S.N., Immaculata College; M.S.N.- C.R.N.P., Widener University

- Linda Cook, R.N., instructor - Diploma, Geisinger Medical Center School of Nursing, B.S.N., Bloomsburg University; M.S.N., University of Pennsylvania
- Carolyn M. Dalton, R.D., assistant professor - B.S., M.S., The University of Connecticut
- Margie Eckroth-Bucher, R.N., assistant professor - B.S.N., Wilkes University; M.S.N., University of Pennsylvania
- Jacqueline Evans-Shields, R.Pharm., associate professor - Pharm.D., University of Arizona
- Michelle Ficca, R.N., assistant professor - B.S.N., East Stroudsburg University of Pennsylvania; M.S., The Pennsylvania State University
- Mary A. Gavaghan, R.N., associate professor - B.S.N., M.S.N., University of Pennsylvania; Ed.D., Temple University
- Annette Gunderman, R.N., associate professor - B.S.N., Bloomsburg University; M.S.N., D.Ed., The Pennsylvania State University
- Sharon R. Haymaker, C.R.N.P, associate professor - B.S.N., University of Maryland; M.S.N., Case Western Reserve University; Ph.D., The Johns Hopkins University
- Sharon S. Kribbs, R.N., assistant chairperson, assistant professor - Diploma, Harrisburg Hospital School of Nursing; B.S.Ed., Bloomsburg University; M.N., The Pennsylvania State University
- Roseanne Levan, R.N., instructor - Diploma, Geisinger Medical Center School of Nursing; B.S.N., Bloomsburg University; M.S.N., College Misericordia
- Cathy E. Livengood, R.N., C.R.N.P. assistant professor - B.S., Alderson-Broadbudd College; M.S.N., West Virginia University, C.R.N.P., University of Pennsylvania
- Frieda Massari-Novak, R.N., assistant professor - Diploma, Reading Hospital; B.S.N., Catholic University of America; M.S.N., Allentown College of St. Francis de Sales
- Joan Miller, R.N., assistant professor - Diploma, Ashland Hospital; B.S.N., M.S.N., Bloomsburg University of Pennsylvania, C.R.N.P., The Pennsylvania State University
- Carol M. Moore, R.N., C.R.N.P., assistant professor - B.S.N., Bloomsburg University; M.S.N., University of Pennsylvania
- Nancy A. Onuschak, R.N., professor - Diploma, Wyoming Valley Hospital School of Nursing;

B.S., M.S.Ed., Wilkes College; M.N., The Pennsylvania State University; D.E.D., Temple University

Sue Ross, R.N., assistant professor, A.B., Wilson College, B.S., Columbia University; M.S., University of Utah

Gloria J. Schechterly, R.N., assistant professor - Diploma, Geisinger Medical Center School of Nursing; B.S.N., Wilkes College; M.S., The Pennsylvania State University

Dorette E. Welk, R.N., professor - B.S.N., D'Youville College; M.S.N., University of Pennsylvania; Ph.D., The Pennsylvania State University

Nursing Policies

Degree and Licensure

In accordance with the Professional Nursing Law (P.L. 317, No. 69, Jan. 1, 1986) a felonious act prohibits a person from obtaining licensure in Pennsylvania. In compliance with this legislation, the following guidelines are enforced by The Pennsylvania State Board of Nursing.

A license or certificate shall not be issued to an applicant who has been convicted of a felonious act prohibited by the act of April 14, 1972 (P.L. 233, No. 64) known as The Controlled Substance, Drug, Device and Cosmetic Act; or convicted of a felony relating to a controlled substance in a court of law of the United States or any other state, territory or country unless:

- a. at least ten (10) years have elapsed from the date of conviction;
- b. the applicant satisfactorily demonstrates to the Board that the applicant has made significant progress in personal rehabilitation since the conviction such that licensure should not create a substantial risk of further violations;
- c. The applicant otherwise satisfies the qualifications contained in or authorized by this act.

(Convicted includes a judgment, an admission of guilt or a plea of *nolo contendere*. A person convicted of any felonious act may be prohibited from licensure by the Penn-

sylvania State Board of Nursing at any time.)

Student Employment

In accordance with the Pennsylvania Professional Registered Nurse Rules and Regulations, students who are employed in health agencies may not be employed as registered or practical nurses unless they are currently licensed.

Accreditation

The Bachelor of Science in Nursing (BSN) program is accredited by the National League for Nursing Accrediting Commission (NLNAC), is fully approved by the Pennsylvania State Board of Nursing and has preliminary approval from the Commission on Collegiate Nursing Education (CCNE). Preliminary approval by CCNE provides an indication that programs have been reviewed by the Commission and have met, at least, the following general requirements:

The nursing education program is viable and appears, based upon the review of the submitted materials, to be conducted in a manner that will enable eventual compliance with CCNE accreditation standards. The institution has a history of seeking and ensuring continuing accreditation and program recognition by appropriate accrediting and regulatory agencies.

The institution has ensured the continuing viability of the nursing education program by being responsive to the concerns of accrediting and regulatory agencies.

Any further information regarding the program and NLNAC accreditation status and/or CCNE preliminary approval contact the National League for Nursing Accrediting Commission at 350 Hudson Street, New York City, N.Y., 10014 or call (800) 669-9656, ext. 153 or the Commission on Collegiate Nursing Education at One DuPont Circle NW, Suite 530, Washington, D.C., 20036 or call (202) 887-6791.

Application Categories

Applications to the nursing program fall into two categories: freshman and transfers.

Freshman - A secondary school student or secondary school graduate without any postsecondary experience (formal education beyond secondary school).

Transfer Candidate - An applicant who was previously enrolled at Bloomsburg University or who was enrolled in a postsecondary educational program.

Admission Requirements and Process

Freshmen Candidates

Secondary school students should submit an application to the university's Office of Admissions early in their senior year. (See section on Admissions, Financial Aid, Fees) Secondary school graduates who have had no formal education beyond secondary school must apply early in November to be considered for the spring semester or early in February to be considered for admission in the fall semester.

The following guidelines are used to evaluate freshman candidates for admission to the Bachelor of Science in Nursing program:

- a. 18 academic units from secondary school. These units must include a minimum of 4 units of English, 3 units of social studies, 2 units of mathematics (1 of which is algebra) and 2 units of science with a related laboratory or the equivalent, plus 7 other academic units in grades 9 through 12.
- b. B average or above in secondary school.
- c. A or B in secondary school chemistry.

d. 1100 SATs with a minimum of 550 in each portion is desirable.

e. Rank in top 25 percent of secondary school class.

It is important that the candidate indicate nursing as the major. The Office of Admissions uses these guidelines in accepting freshman students directly into the nursing program. Nursing faculty consult with the Office of Admissions as necessary regarding candidates for admission. An interview is not required, but the Department of Nursing faculty are available to talk with prospective candidates.

External Transfer Candidates

The Student Admission, Progression and Retention (SAPR) Committee generally reviews transfer applications biannually. Applications must be completed and sent to the Office of Admissions. Only completed files are forwarded to the department.

a. Candidates with college credits from institutions other than Bloomsburg University must apply directly to the Office of Admissions. The Office of Admissions reviews the application and evaluates the credits from the transcripts submitted and if the candidate meets the requirements for transfer into the university, the application is forwarded to the Department of Nursing. The department chairperson and the Student Admission, Progression and Retention (SAPR) Committee review the application for admission to the baccalaureate nursing program. The minimum requirements beyond those for admission to the university are a GPA of 2.5, 16 or greater earned academic credits and evidence of a minimum grade of C in prerequisite science courses. Grades attained in prerequisite science courses outweigh the overall GPA. The chairperson of the Department of Nursing makes the decision based on the committee's recommendation and available positions. Notification of acceptance is forwarded by the Admissions Office.

b. Candidates who are registered nurses must apply directly to the Office of Admissions. Official transcripts from all previously attended postsecondary educational institutions including those colleges affiliated with the hospital schools must be included with the application. To gain ad-

mission to the nursing program, the candidate must be a graduate of a state-approved associate degree or diploma nursing program. The Office of Admissions reviews the application and evaluates any credits from the official transcripts submitted. If a candidate meets the admission guidelines for a registered nurse, his/her application is forwarded to the Department of Nursing. The minimum requirements and process from this point is the same as for other external transfer students.

c. Individuals seeking a second bachelor's degree are considered for admission to the nursing program by the Nursing Department's chairperson. An appointment with the chairperson is encouraged prior to submitting an application to the Office of Admissions for review. The guidelines for freshman admission to the nursing major are followed for such applicants.

Internal Transfer Candidates

Students majoring in other academic disciplines at the university who wish to transfer into the nursing program must apply directly to the Department of Nursing's chairperson. They must meet the guidelines for freshman candidate admission as well as provide evidence of a GPA of 2.5. The candidate seeking transfer sends a letter to the chairperson of the Department of Nursing requesting admission into the nursing program. Upon receipt of the letter, the candidate is sent a "Student's Academic File Transfer Request" form which allows the candidate to obtain his/her academic file from the current department and deliver it to the Nursing Department. The record will then be reviewed by the Student Admission, Progression and Retention (SAPR) Committee. From this point, the process is the same as for external transfers; however, notification of acceptance of internal transfer is sent from the chairperson of the Department of Nursing.

Performance Standards for Admission and Progression

Applicants and students enrolled in the Department of Nursing must possess the necessary intellectual, physical, emotional, social and communication skills to provide nursing care that is safe for the client, themselves and other health care providers.

They must be able to provide safe nursing care in a wide variety of settings with diverse clientele. Students must meet these standards to qualify for and remain in the program. Where possible, reasonable accommodations will be provided to those individuals with disabilities to enable them to meet these standards and ensure that students are not denied the benefits of, excluded from participation in or otherwise subjected to discrimination in this program.

The core performance standards for this program are identified below along with examples of these standards. These examples are not inclusive of all expected abilities and should be used only for simple comparative purposes by applicants and students currently enrolled in this program.

(Adapted from: Core Performance Standards Required for Nursing, Board of Directors of the Southern Council on College Education for Nursing (SCCEN), 1993. Accepted by Faculty Assembly, November 1995)

Critical Thinking - Critical thinking sufficient for clinical judgement. Competent assessment of clients in a timely manner. Correct interpretation of assessment data, identification of necessary nursing interventions, design of appropriate nursing care plans, evaluating the effectiveness of interventions and revising planned interventions.

Cognitive - Ongoing capacity to learn new information and skills to provide safe nursing care. This includes the ability to comprehend, measure, calculate, analyze and evaluate diverse forms of information. Learn new skills and rationales for nursing care in a timely manner. Learn and adopt new methods of providing nursing care to reflect the dynamic nature of health care provision.

Interpersonal - Interpersonal abilities sufficient to interact with individuals, families and groups from a variety of social, emotional, cultural and intellectual backgrounds. Establish rapport and relate effectively with clients, their families and colleagues. Work effectively with these individual when they are stressed physically and / or emotionally. Provide care socially and culturally acceptable to clients.

Communication - Communication abilities sufficient for interaction with others in verbal and written form. Follow verbal and written instructions. Clearly communicate with other health care providers by appropriately documenting the nursing

interventions provided and the clients' responses. Provide effective client teaching, consult with other health care providers in a professional manner.

Mobility - Physical abilities sufficient to move oneself from room to room, along hallways and in small or confined spaces. The ability to meet the physical demands of providing nursing care. Lifting, moving, carrying, pushing and supporting clients, equipment and other objects independently. Standing, bending, walking and sitting while working directly with clients and co-workers and documenting care.

Motor Skills - Gross and fine motor abilities sufficient to provide safe and effective nursing care. Perform vital signs, CPR, physical assessment, use equipment, hanging IVs and tube feedings, drawing up and giving injections. Writing or typing to document nursing interventions and patient care.

Tactile - Tactile dexterity sufficient for physical assessment. Perform palpation, functions of physical examination and / or those related to therapeutic intervention, e.g. insertions of a catheter, giving injections.

Visual - Visual ability sufficient for observation and assessment necessary in nursing care. Reading charts, flowsheets, monitors, thermometers. Assessment of patient skin color, pupils, wound healing. Drawing up and administering medications.

Hearing - Auditory ability sufficient to monitor and assess health needs. Auscultation of blood pressure, breath sounds, heart sounds, bowel sounds. Hearing alarms, call bells, cries for help by clients and staff. Converse with clients, families and co-workers. Understanding mechanically reproduced voices such as on audiotape.

Personal Behaviors - Maintains personal behaviors consistent with the American Nurses' Association, Code for Nurses. Demonstrates personal responsibility, accountability, integrity and honesty. Demonstrates respect for clients and their rights. Avoids behavior inconsistent with professional standards such as chemical dependency and abuse, engaging in or supporting criminal behavior

Academic Good Standing Policy

Students in the baccalaureate nursing program must abide by both the university's academic good standing and retention policies and the academic good standing policy of the Department of Nursing. To progress and be retained in the nursing program, the student must:

1. Attain a grade of C or above in:
 - a. Prerequisite natural science courses: Anatomy and Physiology I, Anatomy and Physiology II, Introductory Chemistry, Physiological Chemistry and Introductory Microbiology
 - b. Prerequisite social sciences courses: General Psychology, Life Span Psychology and Principles of Sociology or Contemporary Social Problems or Principles of Cultural Anthropology
 - c. All 82 - departmental courses
2. Obtain a cumulative GPA of 2.50 (after 30-32 earned credits) to enroll in sophomore year nursing courses.

A student who does not meet the identified requirements for departmental academic good standing is required to satisfy the identified deficiencies by repeating the course before further progress in the nursing program can be attempted. A student may fail only one 82. departmental clinical course. A second failure in any clinical course will result in dismissal from the program. In addition, a student may repeat non-clinical nursing courses only once. University policy as to repetition of non-nursing courses applies to the department of nursing.

The department reserves the right and the responsibility to develop procedural guidelines for the implementation of this academic good standing policy.

Recommendations concerning academic progression and retention are made to the Department of Nursing chairperson by the Student Admission, Progression and Retention Committee. Based on these recommendations, students who do not attain academic good standing after one academic period on probation will be required to take a departmental leave of absence.

Departmental Academic Probation

A student who does not meet the identified requirements for departmental good standing will be evaluated by the Committee on Student Admission, Progression and Retention and will be immediately placed on departmental academic probation.

The student will be notified of this decision by the chairperson of the Department of Nursing. The student will be required to eliminate the identified deficiencies through a repetition of the course before progression in the baccalaureate nursing pro-

gram.

A student may fail only one 82. departmental clinical course. A second failure in any clinical course will result in dismissal from the program. In addition, a student may repeat non-clinical nursing courses only once. University policy as to repetition of non-nursing courses applies to the department of nursing program.

Departmental Academic Leave of Absence

A student who does not maintain departmental good standing requirements after one semester on probation or a total of three semesters on probation is automatically required to take a leave of absence from the department. The department chairperson notifies students of such actions.

A student on a departmental academic leave of absence is ineligible to attend any course offered by the Department of Nursing. When on departmental academic leave, a position will be guaranteed for the student for no more than one calendar year. If at the end of one calendar year the student is not ready to return from departmental academic leave of absence, that student will be considered to be withdrawn from the program.

A student seeking reinstatement from a departmental academic leave of absence must do so in accordance with the departmental transfer policy.

Statute of Time Limitation

Once a student has begun the first required 82. departmental course, all required 82. departmental courses must be completed within five calendar

years.

Departmental Retention

Because of the nature of nursing, the nursing faculty reserves the right to counsel, suspend or dismiss those students who, in their judgement, do not satisfy the requirements of scholarship, health and personal suitability for nursing and national licensure.

Health Policy

Based on the requirements of the Pennsylvania State Board of Nursing and contractual agreements with agencies that provide clinical practice sites, the Department of Nursing requires students to have a yearly physical examination, specific diagnostic tests and immunizations. Dental and eye examinations also are required upon admission. The university Student Health Center is responsible for student medical records. These records serve as verification of satisfactory health which is required for progression in the baccalaureate nursing program.

Substance Abuse Policy

The Department of Nursing expects that all students within the department will fully comply with the university's policies relating to alcoholic beverage and drugs, published in the student handbook, *The Pilot*. Students found to be in violation of these policies can be expected to face sanctions delineated in departmental policies, available from the department office.

IDS (09)**Interdisciplinary Studies*****Humanities***

Administered by: Department of Philosophy
College: Arts and Sciences

Campus address: 219 Bakeless Center for the Humanities

Telephone number: (570) 389-4410

Fax number: (570) 389-3026

Adviser: Scott Lowe

Degree awarded: Bachelor of Arts

About the Program

Interdisciplinary studies in the humanities, the natural sciences and mathematics and social sciences offer opportunities for students to follow a less conventional curriculum according to their preferences. A student fulfills 54 semester hours of general education requirements and then chooses to complete the prescribed core courses in the humanities, the social sciences or the natural sciences and mathematics. He or she completes a total of 48 semester hours in the area of his or her core curriculum, with free electives sufficient to meet the 128-semester hour requirement for graduation.

Students interested in the Broad Area Program should contact the program's adviser, Scott Lowe, in the Department of Philosophy.

Required Courses

In addition to 54 semester hours of general education requirements, the student completes a core of 33 semester hours, plus 15 hours of humanities electives to complete a total of 48 semester hours of study. The balance of the university's 128-semester hour requirement for a bachelor's degree comes from elective courses.

20.302 Advanced Composition

20.363 Shakespeare

26.102 Introduction to Theater Arts

25.321 Argumentation

28.111 Introduction to Philosophy

28.212 Logic

Art history elective

Music history/literature/theory elective

History - choose two courses

Languages and Cultures option:

Choose from:

Intermediate foreign language course

Foreign literature course (in original or translation)

Foreign culture and civilization course

Natural Sciences and Mathematics

Administered by: Department of Physics

College: Arts and Sciences

Campus address: Hartline Science Center

Telephone number: (570) 389-4153

Fax number: (570) 389-3028

Adviser: Nathaniel Greene

Degree awarded: Bachelor of Science

About the Program

The Natural Sciences and Mathematics program, leading to a bachelor of science degree, encompasses an interdisciplinary mix of courses in biology, chemistry, physics, geology, mathematics and computer science. Initial enrollment in this major is recommended for students who would like to graduate with a degree in one of the sciences, but have not yet decided which major to pursue.

The science and math core courses enable the student to easily change major to Biology, Chemistry, Physics, Health Physics, Geology, Earth Science, Mathematics or Computer and Information Sci-

ence.

Completion of the Natural Sciences and Mathematics program is best suited to students with broad academic interests who plan to seek an interdisciplinary scientific career.

To earn a degree in Natural Sciences and Mathematics, students must complete 54 semester hours of general education requirements (15 of which are met by the major), 41-42 semester hours of core courses, 21-31 additional semester hours needed to complete the equivalent of two approved academic minors in the sciences or mathematics and free electives sufficient to meet the 128-semester hour requirement for graduation.

Required Courses

General education requirements of the university apply to this major, with the exception that all 12 semester hours of the Group C distribution requirement may be drawn from the core courses of the major.

The following specific core courses are required.

- 53.125 Analysis I
- 53.126 Analysis II
- 56.121 Introduction to Computer Science
or 56.116 Algorithmic Processes
- 54.211 General Physics I or 54.111
Introductory Physics I
- 54.212 General Physics II or 54.112
Introductory Physics II
- 52.115 Fundamentals of Inorganic
Chemistry
- 52.131 Fundamentals of Organic Chemistry
or 52.216 Chemical Principles and
Measurements
- 50.110 Biology of Animals
- 50.120 Biology of Plants
- 51.101 Physical Geology
- 51.111 Physical Geology Laboratory
- 51.102 Historical Geology
- 51.112 Historical Geology Laboratory

Students are also required to complete additional semester hours so as to satisfy the equivalent of two academic minors, chosen from the following:

- Minor in Mathematics, Statistics or
Computer Science (15-17 semester
hours)
- Minor in Physics or Electronics (10 semester
hours)

Minor in Chemistry (11-13 semester hours)

Minor in Biology (14 semester hours)

Minor in Geology (12 semester hours)

Social Sciences

Administered by: Department of Anthropology

College: Arts and Sciences

Campus address: 106 Waller Administration

Telephone number: (570) 389-4859

Adviser: David Minderhout

Degree awarded: Bachelor of Arts

About the Program

Interdisciplinary studies in the humanities, the natural sciences and mathematics and social sciences offer opportunities for students to follow a less conventional curriculum according to their preferences. A student fulfills 54 semester hours of general education requirements and then chooses to complete the prescribed core courses in the humanities, the social sciences or the natural sciences and mathematics. The student completes a total of 48 semester hours in the area of his or her core curriculum, with free electives sufficient to meet the 128 semester hour requirement for graduation.

Students interested in the Broad Area Program should contact the program's adviser, David Minderhout, in the College of Arts and Sciences.

Required Courses

In addition to 54 semester hours of general education requirements, the student completes a core of 24 semester hours, plus two minors in the social sciences to complete a total of 60 semester hours of study. The balance of the university's 128-semester hour requirement for a bachelor's degree comes from elective courses.

- 46.200 Principles of Cultural Anthropology
- 40.211 Economics I
- 40.212 Economics II
- 48.101 General Psychology
- 45.211 Principles of Sociology
- 40.101 World Physical Geography or 41.102
World Cultural Geography
- 44.101 Elements of Political Science or
44.120

A three-credit statistics course

In addition, each social science major must complete two minors (18 credits each) in the social sciences: anthropology, economics,

geography (i.e., environmental planning), political science, psychology and sociology.

Minor in Legal Studies

Administered by: Department of Finance and Business Law

College of Business

224 Sutliff Hall

Telephone: (570) 389-4760

Fax: (570) 389-2071

Program coordinator, e-mail: Bruce Rockwood,

rockwood@planetx.bloomu.edu

Advisory board: Daniel Robinson, English; Scott Lowe, Philosophy; Richard Micheri, Political Science; Karen Elwell, Finance and Business Law; Sandra Kehoe-Forutan, Geography and Geosciences

About the program

The minor in legal studies promotes the interdisciplinary study of law, enabling undergraduate students in any major to understand and make use of the diverse perspectives on law and the legal system in our complex and rapidly changing society. Legal studies enable graduates to become more effective citizens and participate in the shaping and application of law in the United States and around the world. It enhances the ability of graduates to integrate legal and other methodologies in gathering and evaluating data, making effective arguments, reaching consensus and solving the problems of the future.

The minor recognizes and capitalizes upon the contributions of faculty at Bloomsburg whose teaching and scholarship addresses topics in law and the humanities and social sciences and the impact of law on business, education and society.

Faculty in English, philosophy, political science, geography and earth science and finance and business law serve on the interdisciplinary advisory board.

Required courses

The minor in Legal Studies consists of 21 semester hours, 15 of which must be taken at Bloomsburg University. Required, but not a prerequisite for other courses, is:

98.331 Law and the Legal Environment

Choose one course from the following four courses related to the humanities:

20.152 Literature and Society (when focussed on law and legal issues)

98.349 Law and Literature

20.481 Special Topics in English

98.499 Special Topics in Law

Choose one course from the following seven courses related to the social sciences:

44.244 Introduction to Criminal Justice

44.446 Constitutional Law I

44.447 Constitutional Law II

44.448 The Judicial Process

44.487 International Law and Organization

45.342 Penology

48.254 Psychological Aspects of Social Issues

Choose one course from the following four courses related to rhetoric, theory and jurisprudence:

25.321 Argumentation

28.292 Contemporary Moral Problems

28.305 Philosophy of Law

28.307 Contemporary Political Philosophy

Choose one course from the following eight courses related to legal environment, regulation and doctrine:

27.310 Media Law

41.301 Water Resources Management

41.302 Land Business Management

98.332 Business and Commercial Law

98.407 International Legal Environment

98.450 Legal Environment

98.460 Employment and Discrimination Law

48.499 Special Topics in Law

Electives - Two courses from the following options, totaling six semester hours:

Any two additional courses from two of the four categories above;

An independent study course, honors seminar or international exchange program with the approval of the program coordinator;

Two courses in the first year of law school at Widener School of Law, Harrisburg, if a participant in the "3+3" B.A./J.D. program. See coordinator for details.

Women's Studies

Administered by: College of Arts and Sciences

Campus address: 117 Bakeless Center for the Humanities

Telephone number: (570) 389-2728

Fax number: (570) 389-2094

Program Coordinator: Janice Broder

About the Program

The Women's Studies minor is an interdisciplinary minor consisting of 18 semester hours, includ-

ing an introductory course (20.288 Feminist Reading of Culture), a 400-level capstone seminar and four other courses as follows: one course fulfilling a diversity requirement, one course at the 200 level, one at the 300 level and one at either the 300 or 400 level. Courses vary by semester and may be offered in the Departments of Anthropology; Biological and Allied Health Sciences; Communication Studies and Theatre Arts; English; Health and Physical Education; History; Philosophy; Political Science; Psychology; Sociology, Social Welfare and Criminal Justice and those identified as interdisciplinary studies.

Courses that count toward the Women's Studies Minor include:

- 09.230 Human Sexuality
- 20.287 Black Women Writers
- 20.288 Feminist Reading of Culture
- 20.388 Gender, Race and Class
- 25.494 Gender Issues in Communication
- 25.492 Feminist Discourse
- 28.308 Feminist Philosophy
- 42.329 The American Woman
- 42.469 Women and Gender in European Intellectual History I
- 44.377 Feminist Political Theory
- 44.470 Women and Gender in European Intellectual History II
- 45.231 Marriage and Family
- 45.320 Sociology of Women
- 48.350 Psychology of Sex and Gender

HON (08)

Honors Program

Administered by: Honors Advisory Committee
Academic Affairs

Campus address: 7 Bakeless Center for the Humanities

Telephone number: (570) 389-4713

Fax number: (570) 389-4766

Program director: Dale Springer

Advisory Committee

Janet Bodenman, Robert Campbell, Nancy Coulmas, Helmut Doll, James Dutt, Ervene Gulley, Julia Kipe-Nolt andrea Pearson, Viola Supon, Philip Tucker, Faith Warner and two student representatives

About the Program

The Bloomsburg University Honors Program offers opportunities for an enriched college experience to students seeking academic challenge.

The Honors Program's goals are: to challenge students to perform at the highest level of excellence

- to encourage independent thinking and learning

- to create a supportive environment that encourages the aspirations and achievements of students and fosters their dignity, self esteem and sense of initiative

- to encourage creativity, intellectual independence, analytical thinking and problem solving and the growth of communication skills through a strong emphasis on reading, writing and research

- to provide opportunities for students to develop a broader perspective on national and global issues

- to provide forums for symposia, experiential learning and independent study

- to create a meaningful learning community

- to develop students' leadership potential

- to enable students to engage in a rigorous, coherent, integrated academic experience with a high degree of student-faculty interaction

The Honors Program encourages students to explore opportunities for post-graduate work and professional study. The Honors Program is proud of the high rate of acceptance of Bloomsburg honors students to professional and graduate programs.

Typically, honors classes are smaller, offering students opportunities to discuss in greater depth the subject being taught. Honors classes are often enriched through field trips, guest speakers, films and special projects.

New freshmen applying for admission to the program must have a minimum of 1100 SAT and rank in the top 20 percent of their high school class. Admittance to the program for students already at Bloomsburg is based on academic performance at Bloomsburg University.

The Honors Program awards merit scholarships on a competitive basis to entering freshmen. Some upper-level competitive merit scholarships are also available each year. Many honors students also qualify for other merit scholarships, such as the Mitrani and Presidential awards.

Honors students at Bloomsburg take 25 hours of honors courses that include honors general educa-

tion courses, honors upper division seminars and two semesters of honors independent study culminating in an honors thesis.

Required Courses

The student can take up to 34 hours of honors work but only 25 are required and courses (except the senior honors independent study) can be taken at any time during the student's enrollment at Bloomsburg.

To graduate with honors, the student must take at least one honors humanities, one honors math/science class with a laboratory component, one honors social science class and one 300-level honors seminar plus 08.300 Introduction to Honors Research, plus two semesters of honors independent study.

Freshmen entering the program will automatically be placed in 20.104 Honors Composition for fall semester of their freshman year.

Honors curriculum - The student will be required to take 25 hours of honors credit distributed among the following classes, with additional requirements as indicated: Choose one of the following two courses to fulfill general education requirements for humanities courses:

08.101 Honors Humanities I

08.201 Honors Humanities II

Choose one of the following two courses, with a laboratory component that may be exempted by the director:

08.110 Honors Math/Science I

08.210 Honors Math/Science II

Choose one of the following two courses to fulfill general education requirements for social science courses:

08.130 Honors Social Science I

08.230 Honors Social Science II

08.300 Introduction to Honors Research

Choose one of the following four courses to fulfill general education requirements in these areas:

08.301 Honors Seminar on Values

08.302 Honors Seminar on Diversity

08.303 Honors Seminar, Quantitative and Analytical Reasoning

08.304 Honors Seminar, Interdisciplinary Studies

Course numbers for the following two courses depend on the program in which the student is completing a degree. Business, Humanities and Social Sciences independent studies are scheduled under Code 09, while Biology, Chemistry, Geology, Mathematics and Professional Studies use their own course numbers. Consult an adviser.

DVS (01)**Developmental Instruction**

**Administered by: Academic Support Services
Academic Affairs**

Campus address: 14 Waller Administration Building

Telephone number: (570) 389-4492

Fax number: (570) 389-3893

TDD: (570) 389-4492

Department chair: John Wardigo

About the Program

The Department of Developmental Instruction, including Act 101/EOP and University Tutorial Services, provides academic support services for all students admitted to the university. The supportive services are designed to assist students to achieve their potential and compete on an equal basis with all other students. Specifically, the department offers developmental courses designed to help any student admitted to the university to develop skills in reading, writing and mathematics.

Developmental courses do not carry graduation credit. In addition, students receive academic advising, personal and financial aid counseling and participate in activities to acquaint them with the campus environment.

To be considered for admission to the university through Act 101/EOP, students must demonstrate the potential for success at this level. Students receiving the highest priority for admission should have a 700 or better SAT score, have a 94 percent or better attendance rate in high school, be ranked in the upper half of their high school class and have a recommendation from a counselor or teacher.

Students admitted to the university through Act 101/EOP must participate in diagnostic testing and successfully complete a six-week pre-college summer program. Faculty assess each student's potential for success every week during the summer pro-

gram. Criteria include grades, attitude and attendance. Admission to the university in the fall is guaranteed only after satisfying these conditions.

On average, students in the program graduate in four and one half years because developmental courses do not count for graduation credit and must be taken in addition to the required 128 credits for graduation.

The department gets mid-term grade reports for each student who has not completed 64 hours of study and those students who have completed 64 hours but have not earned a grade point average of 2.3 on a 4.0 scale.

The department has a direct responsibility for all students admitted to the university through Act 101/EOP.

About 500 students are presently enrolled at Bloomsburg through Act 101/EOP. Of this number, 48 percent represent minorities, 65 percent are women and 20 percent are nontraditional age students. All these students have two things in common: they do not match the usual Admission Office profile (perhaps because of SAT scores) and they meet the requirements of either the state or the university's program for disadvantaged students. For eligibility as a disadvantaged student at Bloomsburg, one should be classified in the categories of financial, cultural, social, physical or educational. Act 101 participants must be academically and economically disadvantaged.

Financial aid is available to eligible students. Advisement is done by the program that supplements efforts of the financial aid and academic advisement offices.

University Tutorial Services offers services created to support and enhance the academic performance of any undergraduate student at the univer-

sity. Peer tutoring is available upon request in a variety of courses and is provided by university students who have distinguished themselves by exemplary overall academic performance as well as proven superior achievement in each course offered. Tutors must also qualify for federal or state work-study employment unless they wish to volunteer as a service to the university. In addition, all tutors must participate in a personal interview, an orientation session and any tutor training activities provided each semester.

Any university student desiring tutorial service need only complete a brief application in order to request this free service. Applications and further information are available at the University Tutorial Office, which is open during both the day and evening hours and is located in 132U Luzerne Residence Hall. University Tutorial Services welcomes referrals by faculty, administration and fellow students of both tutors and tutees.

The goals of developmental instruction are to assist in the successful performance of all students and their smooth integration into the higher education process. The philosophy of Developmental Instruction is based on the principles of prevention of problems and dedication to meeting individual needs. The department offers a full range of academic, advisory and counseling services to students. Services also are open to non-program students who wish to take advantage of developmental reading, writing or mathematics courses/labs conducted by faculty members and student tutors. The department has also established an experimental course in English as a second language.

The Reading Lab, located in Room 310 of Bakeless Center, offers individualized instruction in understanding textbooks and learning strategies for most courses on campus. Group instruction also is provided for selected courses based on student enrollment in the program. Workshops on test-taking strategies and mini-courses on speed reading are scheduled periodically.

A developmental writing course is available to any university student as a primer to entering the required English courses. Students who do not need a full semester of instruction may establish an individualized instruction program through the Act 101/EOP Writing Center in Bakeless Center for the Humanities, Room 309.

The purpose of developmental mathematics is to improve mathematical skills necessary for the

successful completion of college-level courses. The mathematics lab, located in 309 Bakeless Center for the Humanities, also offers workshops on topics such as Building Self-Confidence in Mathematics and tutorial assistance for math classes offered at the university, especially College Algebra and Math Thinking. Students may use a variety of instructional materials including individualized learning programs, supplementary texts, audio tapes, microcomputers and computer software (for computational skills, geometry and algebra). Based upon incoming academic credentials, students may be required to take diagnostic examinations for possible placement in developmental courses.

Courses Offered

01.011 Reading I (Summer) (3) - Designed to improve a student's reading ability to a level where he/she can compete at the next level. Instruction given in a laboratory and lecture format. Weekly contacts provide individualized prescriptions. Two semester hours toward full-load status; grade counted in GPA. Does not apply toward graduation.

01.025 Reading II (3) - Course presents major components of the reading process and emphasizes basic reading skills. Three semester hours towards full-load status; grade counted in GPA. Does not apply toward graduation. A prerequisite for College Reading and Study Skills for students scoring below the established cutoffs on the Nelson Denny Reading Test.

01.041 Writing I (Summer) (3) - Fundamentals of standard written English for students who test extremely low on SAT-V and whose writing samples confirm need. Emphasis on language activities such as conferencing, revising and editing of papers and reading response journals to improve basic skills in context and reduce anxiety about writing. Numerous and varied short writing assignments. Grade counted in the GPA. Does not apply toward graduation.

01.060 Writing II (3) - Required of students whose SAT-V scores fall below a standard set by the university and whose writing samples confirm need. Students refine basic writing skills in context of varied writing assignments that address given rhetorical situations. Assignments call for specific evidence and responsible generalization from that evidence. Classwork may include conferencing, collaborative work, student presentations, reading and discus-

sion as well as writing. Grade counted in GPA. Does not apply toward graduation.

01.071 Pre Algebra (Summer) (3) - Geared for students with inadequate arithmetic skills. Study skill techniques and problem-solving strategies explored. Emphasizes basic computer literacy and uses computer-assisted instruction. Three semester hours toward full-load status; grade counted in GPA. Does not apply toward graduation.

01.080 Introductory Algebra (3) - Recommended for students with minimal algebraic skills as evidenced by student preparation and results obtained in diagnostic tests. A program designed for each student may include operations of rational numbers, ratio, proportion, percent, geometric concepts, basic algebraic concepts and skills. Concepts may include beginning linear equations. Three semester hours toward full-load status; grade counted in GPA. Does not apply toward graduation.

01.090 Intermediate Algebra (3) - Emphasizes intermediate algebraic skills necessary if success is to be obtained in College Algebra. Topics include linear equations and functions, exponents and polynomials, factoring, rational expressions and quadratic equations. Provides concepts and skills necessary for college-level math courses that build on a limited algebraic background. Three semester hours toward full-load status; grade counted in GPA. Does not apply toward graduation.

01.095 Introductory Science (Summer) (3) - Acquaints the student with scientific terminology and methodology; familiarizes the student with the study skills unique to the mastery of science; prepares the student for subsequent courses in science;

and makes the student more comfortable with the nature and characteristics of science. Three semester hours toward full-load status; grade counted in GPA. Does not apply toward graduation.

01.099 Intensive English Seminar (Summer) (6) - Designed for entering international students who score at least at the ACTFL level 1+ on a departmentally-administered oral placement test, but who have low TOEFL scores or who wish to improve English skills preparatory to enrollment in other classes. Provides 90 hours of conversation and acculturation in the company of native English speakers, together with some practice in writing and grammar. Credit does not apply toward graduation.

01.100 College Study Skills (1) - Designed to provide, formulate and apply the methods and models of learning strategies. Principle focus on content area reading and study skills. Outside readings and discussion focus on the nature of learning and the individual's responsibility to learning. Product and process discussed and compared to various approaches to learning. Applies toward graduation. Usually restricted to the summer freshmen program or offered upon special request.

01.120 College Reading and Study Skills (3) - Develops the complex reading and study skills essential for college learning. Focuses on content area reading and study strategies, reading flexibility and critical reading skills. Outside readings focus on the nature of learning and the individual's responsibility to learning. Students may be required to use the reading lab for computerized vocabulary lessons and speed reading exercises. Applies toward graduation.

MIL (67)**Air Force ROTC**

University Programs

Administered by: United States Air Force**Address: AFROTC Det 752****Wilkes University****Wilkes-Barre PA 18766-0001****Telephone number: 1-800-945-5378, ext. 4860****Fax number: (717) 831-7886****Department chair: Lt. Col. Scott R. Papp****Co-adjutant instructors in Aerospace Studies: Lt. Col. Scott R. Papp, chairperson; Maj. Gregory Myers, Maj. David Palmer, Capt. Marin Bangest***About the Program*

The Air Force Reserve Officer Training Corps (AFROTC) program at Bloomsburg University is offered through a crosstown agreement with AFROTC Det. 752, Wilkes University. It permits students to earn commissions as officers in the United States Air Force while pursuing a university degree. Students may enroll in either the four-year or two-year program. Students with three years remaining until graduation may re-enroll concurrently in the freshman and sophomore Aerospace Studies courses and can complete the four-year program in three years.

General Military Course (4-Year Program Only) - The first two years of the four-year program constitute the General Military Course (GMC). GMC courses are open to any university student. Students enrolling in these courses do not incur any military service obligation, with the exception of Air Force scholarship recipients who incur a commitment at the beginning of their sophomore year. The GMC curriculum consists of four one-semester hour aerospace studies courses, plus a non-credit leadership laboratory each semester that introduces students to U.S. Air Force history and environment, customs, courtesies, drill and ceremonies

and leadership skills. Course for the GMC curriculum are normally offered on the Bloomsburg campus each Tuesday. Those who have questions may call (570) 389-2196.

Professional Officer Course (2 and 4-Year Programs) - The final two years of the four-year program comprise the Professional Officer Course (POC). It consists of four three-credit aerospace studies courses, plus a non-credit leadership laboratory each semester. POC cadets earn a \$150-per-month, tax-free subsistence allowance during the academic year and incur a military obligation. To be accepted into the POC, students must pass a physical examination and an officer qualification test, as well as meeting certain academic standards. Four-year cadets must also complete a four-week field training program; two year applicants must complete a five-week field training program, both of which are administered the summer before POC entry. In addition, all POC cadets must complete a course in mathematical reasoning prior to being commissioned.

Uniforms - All uniforms, equipment and textbooks required for AFROTC are supplied by the U.S. Air Force. All cadets are required to pay a nominal deposit that will be refunded when the cadet returns all uniform items in satisfactory condition at the completion of or withdrawal from the AFROTC program.

Scholarships - The U.S. Air Force offers many 2 to 5-year full and partial tuition scholarships for which qualified students may compete if they enroll in AFROTC. All scholarship awards are based on individual merit, regardless of financial need, with most scholarship recipients determined by central selection boards. Scholarship selection boards for students already in college are held in January and

July each year. Since scholarship applicants must meet certain academic, physical fitness and medical requirements to be considered by the scholarship boards, contact the aerospace studies department early, preferably two to three months before boards convene, to apply. High school students wishing to compete for AFROTC college scholarships must complete and submit an application by December 1 of their senior year.

Commissioning - Students who satisfactorily complete the POC curriculum requirements are commissioned as second lieutenants in the U.S. Air Force and will serve on active duty in a career specialty they have chosen, consistent with USAF needs. Qualified students may compete for duty as pilots, navigators, missile operations, space operations, nurses, engineers, meteorologists, computer analysts, lawyers, security police or any of a number of other career fields.

For information, call the Aerospace Studies Department at Wilkes University at 1-800-945-5378, ext. 4860/4861 or on the web at <http://wilkes.edu/~afrotc>. For specific questions or registration, contact Maj. David Palmer at (570) 389-2196 (e-mail palmer@wilkes.edu)

Courses Offered

General Military Courses - The general military courses (GMC) constitute a two-year program for freshmen and sophomores and are designed to provide general knowledge of the role organization, missions and historical development of U.S. Air Power. Students enrolled in the GMC, who are not on Air Force scholarships, incur no military obligations.

61.110 / 61.120 Foundations of the Air Force I/II (1) - Survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems and an introduction to communication skills. 61.151 is mandatory for AFROTC cadets and it complements this course by providing cadets with followership experiences.

61.151 Leadership Laboratory (0) - The first two years of the Leadership Laboratory include a study of Air Force customs and courtesies, drill and ceremonies, issuing military commands, instructing, directing and evaluating the preceding skills, study-

ing the environment of the Air Force officer and learning about the opportunity available to commissioned officers.

61.210 / 61.220 Evolution of USAF Air and Sea Power (1) - Facilitates the transition for Air Force ROTC cadet to Air Force ROTC candidate. Topics include Air Force Heritage, Air Force leaders, quality Air Force and introduction to ethics and values, introduction to leadership, group leadership problems and continuing application of communication skills. 61.151 is mandatory for AFROTC cadets and it complements this course by providing cadets with their first opportunity for applied leadership experiences in class.

AFROTC Field Training

61.230 AFROTC Field Training (1-4) (4 Weeks) - Provides leadership and officership training in a military environment, which demands conformity to high physical and moral standards. Within this structured environment, cadets are screened for officer potential as measured against field training standards. Motivation and professional development is achieved through various programs such as flight orientation, marksmanship and survival training. Prerequisites: 61.110, 61.120, 61.210, 61.220 and interview by professor of aerospace studies.

61.330 AFROTC Field Training (1-4) (5 Weeks) - Provides leadership and officership training in a military environment, which demands conformity to high physical and moral standards. Within this structured environment, cadets are screened for officer potential as measured against field training standards. Motivation and professional development is achieved through various programs such as flight orientation, marksmanship and survival training. Prerequisite: interview by professor of aerospace studies.

Professional Officers Courses - The Professional Officer Courses (POC) constitute a four-semester program, normally taken during a student's junior and senior years, leading to commissioning as an Air Force officer. The POC concentrates on concepts and practices of management and leadership, national defense policy and communication skills.

61.151 Leadership Laboratory (0) - The last two years of Leadership Laboratory consists of activities classified as advanced leadership experiences. Involves planning and controlling military activities of the cadet corps; preparation and presentation of briefings and other oral and written communica-

tions; and providing of interviews, guidance and information that will increase the understanding, motivation and performance of other cadets.

61.310 / 320 Air Force Leadership Studies (3) - Study of leadership and quality management fundamentals, professional knowledge, Air Force doctrine, leadership ethics and communication skills required of an Air Force junior officer. Case studies examine Air Force leadership management situations as a means of demonstrating and exercising practical application of the concepts being studied. 61.151 is mandatory for AFROTC cadets and complements this course by providing advanced leadership experiences in offer-type activities. Prerequisite: AFROTC approved membership in the

POC or permission of the instructor.

61.410 / 421 National Security Affairs I/II (3) - Examines the national security process, regional studies, advanced leadership ethics and Air Force doctrine. Several topics focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. 61.151 is required for all AFROTC cadets and complements this course by providing advanced leadership experiences. Prerequisite: AFROTC-approved membership in the POC or permission of the instructor.

MIL (67)

Army ROTC

Administered by: Department of the Army

Campus address: Army ROTC

Bloomsburg University

400 E. Second Street

Bloomsburg, PA 17815-1301

Telephone number: (570) 389-2123

Fax number: (570) 389-2523

Department chair: Maj. Robert Boehnlein

Instructors: Co-adjunct instructor: Capt. Robert Haldeman

About the Program

Bloomsburg University students can qualify for a commission in the U.S. Army, Army Reserve or National Guard through the on-campus Reserve Officers' Training (ROTC) program while simultaneously pursuing a degree. Students take the first two years of the ROTC incurring no military obligation. Opportunities also exist for attending Airborne, Air Assault and Northern Warfare Schools.

Army ROTC provides a four-year curriculum open to both men and women regardless of academic major or area of study. All equipment, clothing and books are provided free of charge. The program is divided into two parts, the Basic Course and the Advanced Course. The Basic Course consists of four courses given during the freshman and sophomore years. During this period, classes include such subjects as military history and organization, traditions, leadership development, time management and adventure training.

The Advanced Course consists of four courses given during the junior and senior years. This portion of the curriculum concentrates on practical application of leadership skills such as tactics, training, ethics and continued leadership development.

Students receive academic credit for all ROTC courses. The basic program does not require the

student to make any commitment to the U.S. Army and allows the student to develop an understanding of the role of the commissioned officer within the Army. Coursework provides training in leadership and management skills which help the individual develop the ability to communicate effectively, think analytically and make independent and responsible decisions.

Two, three and four year academic scholarships are available. Benefits include full tuition and fees, a flat fee for books and \$150 a month during the academic year. Students enrolled in the advanced program also receive the \$150 a month regardless of whether or not they were awarded a scholarship. During the summer between the junior and senior year, advanced camp cadets attend a five-week paid internship at Fort Lewis, Washington.

Veterans can receive constructive credit for the first two years of ROTC and are eligible to enter directly into the Advanced Course. There are a variety of options available to qualify students for the Advanced Course who did not take ROTC their first two years. Students belonging to the Army Reserve or National Guard are also eligible for the Simultaneous Membership Program.

Army ROTC also offers a ranger team for students who wish to gain more experience in outdoor activities such as orienteering and survival skills.

Students who successfully complete the ROTC curriculum receive a commission as a Second Lieutenant in the U.S. Army, Army Reserve or National Guard. Time served on active duty varies, dependent upon the type of program the student elects. Students can be guaranteed Reserve or National Guard duty if they desire.

For more information about the ROTC program, call (570) 389-2123 or (570) 389-2523.

Courses Offered

Basic Course - Freshman and Sophomore Years -

Note: Leadership laboratories consist of adventure/survival training, land navigation, first aid and dismounted drill exercises which cannot be conducted in the classroom.

67.110 Introduction to Military Science (I) - Provides an overview of the organization of the ROTC program. Introduces skills such as rappelling, marksmanship, military customs, preparing military correspondence and practical field training. One one-hour class per week, 12 hours laboratory time per semester

67.120 Introduction to Military Issues (I) - Provides a background in basic skills essential to leaders. Skills may include marksmanship, tactical movement, first aid and communication skills. One one-hour class per week, 6 evening laboratories per semester

67.210 Applied Leadership and Management I (I) - Provides an overview of the Army rank structure and a specific survey of the junior officer's duties and responsibilities within that rank structure. Practical training consists primarily of advanced land navigation skills as well as rappelling and practical field training. One one-hour class per week, 12 hours laboratory time per semester

67.220 Applied Leadership and Management II (I) - Presents the fundamentals of small-unit leadership and mission planning techniques, to include the reverse planning process and problem-solving techniques. Students learn through case studies how to evaluate different leadership styles and techniques. One one-hour class per week, 12 hours laboratory time per semester

67.230 ROTC Basic Camp (4) - Sophomore summer semester course offered in lieu of the Basic Course for students who want to enter the Advanced Program. The camp is five weeks in duration and students are paid at the rate of half the basic pay for a second lieutenant.

Advanced Course - Junior and Senior Years -

Note: Students gain further practical leadership training during the leadership laboratories while performing in leadership positions and conducting training.

67.310 Advanced Military Science I (3) - Provides a detailed study of the leadership techniques and the principles introduced in 67.220. Course places students in role-model situations to provide first-hand experience in problems of small-unit leadership. One 3-hour class per week, 12 hours laboratory time per semester

67.320 Theory and Dynamics of the Military Team (3) - Practical application of the skills learned in 67.310. Students learn how to apply planning and management skills properly in conjunction with small-unit tactics. One 3-hour class per week, 12 hours laboratory time per semester

67.330 ROTC Advanced Camp (6) - A six-week practical application and evaluation phase required of each cadet prior to commissioning. Advanced camp places cadets in leadership positions where they must put into practice the techniques learned on campus in both tactical and nontactical situations.

67.410 Advanced Leadership and Management I (3) - Presents advanced leadership and management skills required of a manager in a military environment. Students perform roles in management of a military organization using skills in administration, training, conduct of meetings, briefings and logistics. One 3-hour class per week, 12 hours laboratory time per semester

67.420 Advanced Leadership and Management II (3) - Acquaints students through a series of case studies and role playing simulations with the high ethical standards required of a manager and leader. Students learn the basic procedures of military law and their application in a military environment. Students continue to perform roles in management of a military organization, using skills developed in prior military science courses. One 3-hour class per week, 12 hours laboratory time per semester

Course Descriptions

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DVS (01) Developmental Instruction

Administered by Department of Developmental Instruction.

- 01.099 Intensive English Seminar (Summer) (6) - Designed for entering international students who score at least at the ACTFL level 1+ on a departmentally-administered oral placement test, but who have low TOEFL scores or who wish to improve English skills preparatory to enrollment in other classes. Provides 90 hours of conversation and acculturation in the company of native English speakers, together with some practice in writing and grammar. Credit does not apply toward graduation.
- 01.011 Reading I (Summer) (3) - Designed to improve a student's reading ability to a level where he/she can compete at the next level. Instruction given in a laboratory and lecture format. Weekly contacts provide individualized prescriptions. Two semester hours toward full-load status; grade counted in QPA. Does not apply toward graduation.
- 01.025 Reading II (3) - Course presents major components of the reading process and emphasizes basic reading skills. Three semester hours towards full-load status; grade counted in QPA. Does not apply toward graduation. A prerequisite for College Reading and Study Skills for students scoring below the established cutoffs on the Nelson Denny Reading Test.
- 01.041 Writing I (Summer) (3) - Fundamentals of standard written English for students who test extremely low on SAT-V and whose writing samples confirm need. Emphasis on language activities such as conferencing, revising and editing of papers and reading response journals to improve basic skills in context and reduce anxiety about writing. Numerous and varied short writing assignments. Grade counted in the QPA. Does not apply toward graduation.
- 01.060 Writing II (3) - Required of students whose SAT-V scores fall below a standard set by the university and whose writing samples confirm need. Students refine basic writing skills in context of varied writing assignments that address given rhetorical situations. Assignments call for specific evidence and responsible generalization from that evidence. Classwork may include conferencing, collaborative work, student presentations, reading and discussion as well as writing. Grade counted in QPA. Does not apply toward graduation.
- 01.071 Pre Algebra (Summer) (3) - Geared for students with inadequate arithmetic skills. Study skill techniques and problem-solving strategies explored. Emphasizes basic computer literacy and uses computer-assisted instruction. Three semester hours toward full-load status; grade counted in QPA. Does not apply toward graduation.

- 01.080 Introductory Algebra (3) - Recommended for students with minimal algebraic skills as evidenced by student preparation and results obtained in diagnostic tests. A program designed for each student may include operations of rational numbers, ratio, proportion, percent, geometric concepts, basic algebraic concepts and skills. Concepts may include beginning linear equations. Three semester hours toward full-load status; grade counted in QPA. Does not apply toward graduation.
- 01.095 Introductory Science (Summer) (3) - Acquaints the student with scientific terminology and methodology; familiarizes the student with the study skills unique to the mastery of science; prepares the student for subsequent courses in science; and makes the student more comfortable with the nature and characteristics of science. Three semester hours toward full-load status; grade counted in QPA. Does not apply toward graduation.
- 01.100 College Study Skills (1) - Designed to provide, formulate and apply the methods and models of learning strategies. Principle focus on content area reading and study skills. Outside readings and discussion focus on the nature of learning and the individual's responsibility to learning. Product and process discussed and compared to various approaches to learning. Applies toward graduation. Usually restricted to the summer freshmen program or offered upon special request.
- 01.120 College Reading and Study Skills (3) - Develops the complex reading and study skills essential for college learning. Focuses on content area reading and study strategies, reading flexibility and critical reading skills. Outside readings focus on the nature of learning and the individual's responsibility to learning. Students may be required to use the reading lab for computerized vocabulary lessons and speed reading exercises. Applies toward graduation.

HPE (05) Health, Physical Education and Athletics

Administered by Department of Health, Physical Education and Athletics.

- 05.112 Varsity Athletics (1) - Open to any student who is a member in good standing of a Bloomsburg University athletic team. Course is graded pass/fail.
- 05.113 Varsity Athletics II (1) - Open to any student who is a member in good standing of a Bloomsburg University athletic team. Course is graded pass/fail.
- 05.149 Aquatics (1) - Provides an opportunity for non-swimmers to make a proper physical and mental adjustment to water. Introduces basic skills as provided by the American Red Cross with specific emphasis on becoming safe in, on or about a body of water.
- 05.150 Aquatics (1) - Contains same content as 05.149 but adapted for beginning skills.

- 05.155 **Swimnastics (1)** - Assists students to attain and maintain physical fitness through water activities.
- 05.200 **CPR and Safety (1)** - Designed for completion of Red Cross CPR certification and to develop a safety awareness expertise for accident prevention. Fee may be required.
- 05.220 **International Folk Dance (1)** - Teaches the basic elements of folk dancing that can be combined to form limitless numbers of dances. A wide variety of dances will be taught incorporating these elements.
- 05.214 **Fencing (1)** - Lecture aspect covers a study of the history of fencing, the weapons and equipment involved, rules of the sport and safety procedures. Emphasis on learning and practicing the skills (encompassing practice bouts) and a tournament.
- 05.217 **Bicycling (1)** - An introductory course for novice cyclists who have access to a variable speed bicycle. Local touring is part of the course. Must provide bicycle and helmet.
- 05.219 **Tennis (1)** - A beginning course that teaches basic stroke execution, strategy and court etiquette.
- 05.221 **Jazz Dance (1)** - Develops fundamentals of jazz dance.
- 05.222 **Creative Dance (1)** - Develops the individual's capability for communication of thoughts, feelings and ideas through the medium of dance. Acquaints students with the basic elements of dance and guides them toward technique mastery with emphasis on expressive or creative movement.
- 05.224 **Fitness Dance (1)** - Attempts to provide a method of cardiovascular endurance in a particular interest area.
- 05.225 **Beginning Ballet (1)** - Develops the fundamentals of beginning ballet dancing. Elements, skills and the language of ballet will be introduced. This history and popularity of this art form along with the personal and creative benefits from ballet are included.
- 05.226 **Jogging/Walking (1)** - Explores the relationship of physical activity (jogging/walking) to the components of wellness and healthy lifestyles. Also provides sound exercise principles for successful, personalized fitness programs.
- 05.228 **Gymnastics (1)** - A co-ed introductory course that works primarily on floor exercise and includes instruction on a variety of apparatus including: the balance beam, pommel horse, parallel bars.
- 05.229 **Water Polo (1)** - Develops skills, understanding and appreciation of water polo as recreational aquatic sport. Provides activity and instruction in individual fundamentals and their incorporation into a team concept. Recommended for students with basic swimming ability.
- 05.230 **Weight Training and Fitness (1)** - Develops knowledge, skill and appreciation of weight training and conditioning programs.
- 05.231 **Archery (1)** - Course develops knowledge of, skill in and appreciation of target archery as a recreational pursuit.
- 05.232 **Bowling (1)** - Students learn the mechanics of bowling in this beginner's course that meets off-campus. Students begin with appropriate ball selection, learn acceptable styles, practice proper etiquette and bowl under the instructor's close supervision. Fee required.
- 05.233 **Badminton (1)** - Deals with the strokes, strategies and game of badminton from a beginner's viewpoint. Also valuable to the intermediate player.
- 05.234 **Golf (1)** - An introductory course that develops basic skills. Rules, techniques, etiquette and an emphasis on skill practice are stressed. Fee may be required.
- 05.235 **Riflery (1)** - Develops the skills, safety, understanding and appreciation of riflery as a recreational pursuit.
- 05.236 **Volleyball (1)** - Develops the skills, understanding and appreciation of volleyball as a recreational activity as well as a vigorous, competitive sport.
- 05.238 **Racquetball-Handball (1)** - An introductory course that teaches history, etiquette, strokes, serves and strategy in singles and doubles.
- 05.239 **Square Dancing (1)** - Develops skill in square and folk dances. Covers the sociological, physiological and psychological values of square dancing. Students acquire a repertoire of western square dance moves and dance techniques.
- 05.240 **Slimnastics and Fitness (1)** - Develops an awareness and understanding of physical self and capabilities; teaches students how to improve their physical condition. Includes exercise and body mechanics.
- 05.241 **Judo Self-Defense (1)** - Provides a better understanding of the sport and a competency of judo and self-defense techniques. Should be used as an elective within the physical education service program requirements.
- 05.243 **Backpacking (1)** - Reviews backpacking equipment and first aid procedures; includes how to select trails, menus and cooking methods; teaches safety procedures; discusses how to adjust to the seasons and how to protect the environment.
- 05.244 **Orienteering (1)** - Practical application of the knowledge and skills needed to satisfactorily follow a designated course through the wilderness with use of a watch, a compass and a map.
- 05.245 **Canoeing (1)** - Offers instruction in the basics of canoeing, including skills that can be used recreationally in one's lifetime. Lake and river canoeing will be taught and experienced.
- 05.247 **Rock Climbing (1)** - Provides rock climbing experiences for the beginning rock climbing enthusiast. Introduces basic knowledge, skills and practical application of climbing. Serves as a foundation for further experiences in this area of recreation.
- 05.248 **Basic Sailing (1)** - A beginning course that includes terminology, maneuvering under normal and severe weather conditions, seamanship, boating and safety. Swimming ability required.
- 05.250 **Lifeguarding (2)** - Provides an opportunity to attain an American Red Cross Lifeguarding Certificate. CPR is taught as part of this course.

- 05.251 Techniques of Coaching and Officiating Baseball (3) - Classroom-laboratory provides an overview of baseball administration organization, fundamental skills, drills and techniques of umpiring.
- 05.252 Techniques of Coaching and Officiating Basketball (3) - Instruction in techniques of coaching, player-coach relationship, team strategy, program organization and officiating.
- 05.253 Techniques of Coaching and Officiating Football (3) - Instruction in techniques of coaching, player-coach relationship, program organization and administration and officiating.
- 05.254 Techniques of Coaching and Officiating Field Hockey (3) - Instruction in techniques of coaching and officiating all the phases of field hockey.
- 05.256 Techniques of Coaching and Officiating Cross Country, Track and Field (3) - Analysis of technique and the development of personal skills. Knowledge provided for development of a track program. Discusses rules, starting, officiating, scoring and facility use.
- 05.257 Techniques of Coaching and Officiating Wrestling (3) - Gives prospective coaches an insight into problems and situations that may be encountered; prepares the individual to teach as well as coach wrestling.
- 05.260 Techniques of Coaching and Officiating Swimming (3) - Presents techniques of coaching, swimming, diving; covers rule interpretations and duties of officials.
- 05.265 Basketball (1) - Provides activity and instruction in the development of individual offensive and defensive fundamentals and their incorporation into a team concept. Reviews basic strategy and current trends at all competition levels.
- 05.270 Exercise and You (2) - Studies appropriate physiological functions, exercise physiology, mechanical implications and fitness measurement. Reviews procedures and practical application through programmed exercise. Successful completion of course fulfills two credits of physical education requirement. (3 contact hours).
- 05.271 Intermediate Archery (1) - Provides the opportunity for the student to develop shooting skills.
- 05.272 Intermediate Bowling (1) - Attempts to develop advanced skill and knowledge of bowling. Fee required.
- 05.273 Intermediate Golf (1) - Provides instruction in the techniques and strategy involved in improving the individual skills of the student. Fee may be required.
- 05.274 Intermediate Tennis (1) - Focuses on improving tennis skills.
- 05.275 Intermediate Volleyball (1) - Studies the development and history of volleyball. Attempts to improve fundamental skills, team play and strategy through participation.
- 05.276 Intermediate Judo (1) - Provides an opportunity to develop higher levels of skill competencies in judo.
- 05.277 Advanced Sailing (1) - Intended for students who have sailing experience. Includes maneuvering, race tactics, sail tune, severe weather conditions, docking and anchoring. Prerequisites: Sailing and swimming ability required.
- 05.290 Special Topics (1-3) - Topics announced in the scheduling bulletin prior to each semester.
- 05.298 Fitness and Wellness (3) - Provides learners with the tools for lifelong healthful living. Personal health profiles, mental health, personal fitness programs, stress management, nutritional and environmental health topics are explored. Successful completion of course fulfills one credit of the physical education requirement.
- 05.305 Aquatic Fitness Programming (2) - Develops fitness management leadership skills in an aquatic setting; covers physiological principles of exercise applied to swimming and other water activities. No prior swimming experience necessary.
- 05.306 Psychology of Sport (3) - Aims to familiarize the student with psychological components of human performance related to sport and exercise. Focuses on sport participation and includes psychological assessment, intervention techniques and a brief introduction to the predominant research methods used in sport psychology. Course has particular value to coaches, teachers, psychologists and exercise specialists and other sport-affiliated professions.
- 05.308 Exercise and Mental Health (3) - Provides a strong base of knowledge of theory, research and practice in exercise and mental health. Also provides prospective fitness and exercise professionals (exercise science) with essential information and suggestions of practical value in leadership roles in exercise, wellness, health promotion, corporate fitness, cardiac rehabilitation and other areas.
- 05.309 Decisions for Healthy Behavior (3) - Survey of a variety of health topics including human sexuality, mental health, substance abuse, fitness, nutrition, cancer, death and dying.
- 05.311 Methods, Materials in Elementary School Physical Education (3) - Provides principles and procedures to meet the needs and interests of elementary-age children in the area of physical education.
- 05.320 Health and Safety in the Elementary School (3) - Covers health knowledge, training and health appraisal techniques for teaching elementary school health; the elementary school health program; and safety education in the elementary school.
- 05.321 First Aid Safety (3) - Provides training in first aid and safety. Red Cross standard, advanced and cardiopulmonary resuscitation certifications may be earned. One credit may be applied to the Fitness and Recreational Skills area. .

- 05.330 Introduction to Coaching (3) - An overview of basic theories and coaching applications in sport philosophy, sport psychology, sport pedagogy, first aid and sport management resulting in American Coaching Effectiveness Program Certificate.
- 05.331 Recreation Education (3) - Presents discussion of and practice in, recreation activities used in school and playground situations. Emphasizes techniques of leadership, recreation planning, legal liability and trends in recreation programming.
- 05.333 School Camping and Outdoor Education (3) - Acquaints students with the scope of organized camping and the acquisition of and practices in the basic skills required of individuals involved in camping and outdoor education training. Requires field experiences.
- 05.334 Women In Sport (3) - Surveys aspects of the historical and contemporary role of women in sport. Encourages an awareness in students regarding the differences between sport for men and women in various contexts, including social, psychological and biophysical. By examining the past and current practices and cultural norms in light of evolving research findings, students are expected to increase their understanding of issues germane to sport. Approved as a cultural diversity course.
- 05.370 Measurement and Evaluation in Human Performance (3) - Acquaints future exercise science majors with techniques of evaluating and measuring the progress of physical fitness and exercise testing components. Includes descriptive statistics, knowledge tests, grading, physical performance tests and tests of sport skills. Prerequisite: 53.114 College Algebra or consent of the instructor.
- 05.397 Adult Health Development Program (3) - An intergenerational and multicultural health program that trains students to work one-on-one with older adults to promote health and well-being.
- 05.401 Methods in Fitness Dance (3) - Introduces exercise science majors to the teaching principles and current techniques involved in aerobic-dance and step dancing. Includes methods of designing physical and motivational programs to teach in corporate or similar fitness areas.
- 05.430 Current Issues in Health Education (3) - Assesses major problems which concern communities today: drugs, sexually transmitted diseases, pollution, alcohol and suicide.
- 05.450 ECG Interpretation/Exercise Testing (3) - Provides students with both theoretical and practical knowledge of exercise testing in a research/clinical environment. Students gain knowledge in basic electrocardiogram interpretation for the normal and the diseased heart. A survey of cardiorespiratory structure and function will be provided. Prerequisite: 50.174 or equivalent or permission of the instructor.
- 05.451 Kinesiology: The Analysis of Human Motion (3) - Introduces students to the fundamentals of human movement. After a survey of the musculoskeletal system, students will engage in a detailed analysis of the primary articulations. The fundamentals of biomechanics will be examined to provide students with an appreciation of movement. Prerequisites: 50.173 and 50.174.
- 05.452 Cardiac Rehabilitation (3) - Provides student with both a theoretical and practical knowledge of cardiac rehabilitation. Students study the etiology, epidemiology, patient differences, logistical and administrative considerations, treatments, as well as the education of the cardiac patient.
- 05.476 Exercise Physiology (4) - Study of adult physiological functions under stress and the adjustment and regulatory activities of the body during exercise; development of a working knowledge of assessments, motor characteristics and physical performance. Prerequisites: 50.173 and 50.178.
- 05.477 Methods and Materials in Adult Physical Education (3) - Emphasizes the academic and technical knowledge necessary to conduct health and fitness programs in public and private agencies. Students are prepared to assume leadership and management positions within the health and fitness industries. Prerequisite: 05.476.
- 05.498 Internship in Exercise Science (6-15) - Provides the student with a practical on-site work experience in which technical skills and abilities are applied. Site is selected by the student with the approval of the major director. Required experience is designed to be the culminating experience of undergraduate course work and facilitates the transition from the role of student to employee. Prerequisites: 50.173, 50.174, 05.476, 05.477.

HON (08) Honors Courses

Administered by Honors Advisory Committee, Academic Affairs.

- 08.101 Honors Humanities I (3) - Allows freshmen and sophomore level students to focus on a specific topic or related topics in the humanities for in-depth study and analysis. Topics vary from semester to semester. Requires extensive reading on a chosen topic, the development of the students' own ideas on the topic and the expression of those ideas in written and oral form. Fulfills general education requirement for humanities.

- 08.110 Honors Math and Science I (3-4) - Allows students to focus on a specific topic or related topics in math or science for in-depth study and analysis, including laboratory experience. Topics vary from semester to semester. Requires extensive reading on a chosen topic, the development of the students' own ideas on the topic and the expression of those ideas in written and oral form. Fulfills general education requirement for math/natural science.
- 08.130 Honors Social Science I (3) - Allows students to focus on a specific topic or related topics in the social sciences for in-depth study and analysis. Topics vary from semester to semester. Requires extensive reading on a chosen topic, the development of the students' own ideas on the topic and the expression of those ideas in written and oral form. Fulfills general education requirement for social science and approved as a diversity course.
- 08.201 Honors Humanities II (3) - Allows freshmen and sophomore level students to focus on a specific topic or related topics in the humanities for in-depth study and analysis. Topics vary from semester to semester. Requires extensive reading on a chosen topic, the development of the students' own ideas on the topic and the expression of those ideas in written and oral form. Fulfills general education requirement for humanities.
- 08.210 Honors Math and Science II (3-4) - Allows students to focus on a specific topic or related topics in math or science for in-depth study and analysis, including laboratory experience. Topics vary from semester to semester. Requires extensive reading on a chosen topic, the development of the students' own ideas on the topic and the expression of those ideas in written and oral form. Fulfills general education requirement for math/natural science.
- 08.230 Honors Social Science II (3) - Allows students to focus on a specific topic or related topics in the social sciences for in-depth study and analysis. Topics vary from semester to semester. Requires extensive reading on a chosen topic, the development of the students' own ideas on the topic and the expression of those ideas in written and oral form. Fulfills general education requirement for social science.
- 08.300 Introduction to Honors Research (1) - Serves as an introduction to research and includes guest lectures from library staff, university faculty across the disciplines and from other university personnel concerned with undergraduate research. Required of all honors students before beginning honors research. The student chooses an honors mentor and begins planning research. In the pass/fail course, the student must produce a proposal for honors thesis research that meets the approval of the Honors Advisory Committee.

- 08.301 Honors Seminar on Values (3) - Features study of a selected topic that will change with each offering. Upper division seminar focuses on values and ethical issues and may be taught by professors from any of the colleges or Arts and Sciences divisions. Seminar fulfills the general education requirement for values courses.
- 08.302 Honors Seminar on Diversity (3) - Features study of a selected topic that changes with each offering. Upper division seminar focuses on diversity issues and may be taught by professors from any of the colleges or Arts and Sciences divisions. Seminar fulfills the general education requirement for diversity courses.
- 08.303 Honors Seminar on Quantitative and Analytical Reasoning (3) - Features study of a selected topic that changes with each offering. Upper division seminar focuses on diversity issues and may be taught by professors from any of the colleges or Arts and Sciences divisions.
- 08.304 Honors Interdisciplinary Seminar (3) - Features study of a selected topic that changes with each offering. Upper division seminar focuses on diversity issues and may be taught by professors from any of the colleges or Arts and Sciences divisions.

IDS (09) Interdisciplinary Studies

Administered by College of Arts and Sciences.

- 09.100 University Seminar (1) - Promotes a successful transition to college life for new freshmen through the presentation of critical information about the university's academic program.
- 09.111 Introduction to the Peoples of the Third World (3) - Examines the peoples of the Far and Middle East, Africa and Latin America; their art, literature, philosophy, cultural geography and history, sketching their importance in the world.
- 09.211 History of Natural Scientific Thought (3) - Reviews the historical development of the natural sciences and mathematics, the nature of scientific and mathematical thought and methods, characteristics of these disciplines and their significance to human progress.
- 09.213 Science, Technology and Human Values (3) - Compares the interaction of science and technology with human values. Studies past, present and future technological developments and their impact on personal and social values.
- 09.230 Human Sexuality (3) - Presents a two (2) gender perspective of the roles of sexuality in the life of humans. Considered are anthropological, biological, psychological and sociological aspects of sexuality and their relation to popular culture and diversity. Addresses current public health issues, ethics, responsible decision-making and values.

- 09.231 Technical Writing (3) - Presents the principles of technical writing in the physical, natural and social sciences and in technology and industry. Promotes effectiveness in communicating technical information to specialized and general audiences. Uses seminar approach involving class participation and individualized instruction.
- 09.311 Seminar in American Studies I (3) - Provides a thorough appreciation of our varied heritage and research materials and resources available for deepening the knowledge of this growing area of inquiry.
- 09.312 Seminar in American Studies II (3) - continuation of 09.311.
- 09.487 THIS Internship Experience (9) - Internship provides outstanding students with enriching academic experience as an intern in the executive or legislative branches of state government or with state boards, agencies or commissions.
- 09.488 THIS Research Project (3) - The student intern completes an individualized directed project involving substantial analysis and research. The project is related to the internship experience.
- 09.489 THIS Academic Seminar (3) - Student interns participate in a seminar coordinated by the resident director. The seminar is structured to integrate the student's work experience with a rigorous academic component and an exposure to multiple facets of state government.
- 09.491 Honors Independent Study in Humanities I (1-3) - An independent study course in which, under the guidance of a faculty mentor, the student completes the initial project(s) in the first stage of his/her proposed honors work.
- 09.492 Honors Seminar in the Humanities (3) - Allows for continued in-depth study of a particular research project of the student's choice and provides honor students the opportunity to discuss with peers and interested faculty concepts in the humanities related to the project and to the student's major field. Seminars organized around general themes selected by the humanities honors committee and announced in advance.
- 09.493 Honors Independent Study in the Humanities II (1-3) - Independent study in an area previously approved as part of the student's overall honors program.
- 09.495 Honors Seminar in the Natural Sciences and Mathematics (1) - Offers a cross-disciplinary perspective to students in the honors program with emphasis on student presentation and discussion of important topics in a student's area of expertise.
- 09.496 Honors Independent Study in the Social Sciences I (1-3) - Involves the student's selection of an honors adviser and project, initial exploratory reading and a proposal for a major Honors Independent Study Project. Reserved for students who qualify for and wish to pursue an honors course of study in their last two years. Usually taken in the junior year.

- 09.497 Honors Seminar in the Social Sciences (3) - Allows for continued in-depth study of a particular research project and provides honor students the opportunity to discuss with peers and interested faculty concepts in the social sciences which relate to the research project and the student's major field. Focus of the seminar is interdisciplinary.
- 09.498 Honors Independent Study in Social Sciences II (3) - Provides for an on-site work experience and training program designed to give selected interns an opportunity to apply theoretical and descriptive knowledge acquired in multiple humanities disciplines. Requires approval of the internship coordinator and the dean of Arts and Sciences.

FRE (10) French

Administered by Department of Languages and Cultures.

- 10.100 Foundations of French Language and Culture (3) - Seeks to develop novice proficiency with emphasis on intercultural communication in the context of the Francophone world. Language laboratory activities required.
- 10.101 French I (3) - Seeks to develop the four language skills and acquaint students with elements of francophone culture. For students with no more than two years of French. Practice in the language laboratory required.
- 10.102 French II (3) - Continuation of 10.101. Prerequisite: 10.101 or equivalent.
- 10.203 French III (3) - Continuation of development of the four language skills. Emphasis on reading. Study of francophone culture. Practice in the language laboratory. Prerequisite: 10.102 or equivalent.
- 10.204 French IV (Fall) (3) - Continuation of 10.203. Emphasis on culture and oral communication skills. Practice in the language laboratory. Prerequisite: 10.203 or equivalent.
- 10.205 Applied Phonetics and Pronunciation (3) - Analyzes French sound system. Drills on pronunciation and intonation. Selections of prose, poetry and songs for imitation. Not offered every semester. Prerequisite: 10.102 or equivalent.
- 10.206 Structure of the French Language (3) - Thorough study of grammar and syntax and use of idioms through applied exercises. Introduction to French morphology. Not offered every semester. Prerequisite: 10.204 or equivalent.
- 10.207 Conversation: French Daily Life and Customs (3) - Prepared and free speaking activities about everyday life and customs in francophone countries. Not offered every semester. Prerequisite: 10.204 or equivalent or concurrently with 10.204 with consent of the chairperson.

- 10.211 Foundations of French Culture and Civilization (Fall) (3) - Reviews major developments of French culture from an historical point of view. Taught in English; knowledge of French unnecessary. Special projects for French majors. Approved as a diversity course.
- 10.212 France Today (3) - Presents major aspects of life in France today. Taught in English; knowledge of French unnecessary. Special projects for French majors. Not offered every semester. Approved as a diversity course.
- 10.281 - 10.289 Special Topics (1-3) - Provides knowledge and training in fields usually not covered in regular courses. Content determined by instructor and varies each time course is offered. Topics may include French for travelers, French gastronomy, Quebec culture. Not offered every semester.
- 10.290 French Studies Abroad (1-6) - Prerequisite: Minimum two semesters of French or equivalent or consent of the chairperson.
- 10.295 Art and Culture of France (3) - Provides a study-tour of France with attention to French art as seen in relation to its social and cultural environment. Visits to places of artistic and cultural interest in and around Paris and the provinces. Not offered every semester. Prerequisite: Consent of the instructor.
- 10.309 Commercial French (3) - Acquisition of French business language and terminology in reading, writing and speaking. Includes cultural content of francophone culture. Provides an introduction to business correspondence. Not offered every semester. Prerequisite: 10.204 or equivalent.
- 10.331 Selected 20th Century Writers (Fall) (3) - Students study French for reading and cultural knowledge; selected modern works. Prerequisite: 10.204 or equivalent.
- 10.401 Advanced French Language (3) - Presents a thorough review of phonology, morphology, syntax and semantics. Practical application in advanced speaking including activities with development of cultural proficiency. Not offered every semester. Prerequisite: 10.206 or consent of the chairperson.
- 10.402 Contemporary Issues in Francophone Media (3) - Presents further development of language fluency through discussion of current topics and issues selected from francophone newspapers and magazines. Not offered every semester. Prerequisite: 10.207 or equivalent.
- 10.409 Commercial French II (3) - Studies French business life aiming at preparing students for internships in business in France, Quebec or a branch of a French company in the U.S. Reviews business correspondence and cultural content. Not offered every semester. Prerequisite: 10.309.
- 10.422 Masterpieces of French Literature (3) - Studies the most significant writers and playwrights of France. Not offered every semester. Prerequisite: 10.206 or consent of the chairperson.

- 10.423 Black Francophone Writers and Culture (3) - Presents major aspects of life in Black francophone countries and major writers in those countries. Taught in French. Not offered every semester. Prerequisite: 10.204 or consent of the chairperson.
- 10.490 Independent Study in French (1-9) - Provides for individual study of a particular aspect of French civilization, language or literature under faculty supervision. Prerequisites: Consent of the instructor and the chairperson.

GER (11) German

Administered by Department of Languages and Cultures.

- 11.100 Foundations in German Language and Culture (3) - Seeks to develop novice proficiency with emphasis on intercultural communication in the context of the German-speaking world. Language laboratory activities required.
- 11.101 German I (3) - Develops the four language skills and acquaints students with elements of German-speaking cultures. For students with no more than two years of German. Requires practice in the language laboratory.
- 11.102 German II (3) - Continuation of 11.101. Reading and writing given additional emphasis. Prerequisite: 11.101 or equivalent.
- 11.121 German Authors of the 20th Century I (3) - Examines works of major German authors such as Hesse, Brecht, Mann, Kafka, Durrenmat and Boll. Taught in English; knowledge of German unnecessary. Readings in German and special projects for German majors. Not offered every semester.
- 11.122 German Authors of the 20th Century II (3) - Continuation of 11.121. Taught in English; knowledge of German unnecessary. Readings in German and special projects for German majors. Not offered every semester.
- 11.203 German III (3) - Development of the four language skills. Basic grammar reviewed and new grammatical concepts presented. Reading and study of the culture given additional emphasis. Not offered every semester. Prerequisite: 11.102 or equivalent.
- 11.204 German IV (3) - Continuation of 11.203. Emphasizes culture and communication. Not offered every semester. Prerequisite: 11.203 or equivalent.
- 11.205 Applied Phonetics and Pronunciation (3) - Analysis of the German sound systems. Drills on pronunciation and intonation. Selections of prose, poetry and songs for imitation. Prerequisite: 11.102 or two years of high school German. Not offered every semester.
- 11.206 Grammar and Composition (3) - In-depth study of German grammar. Stresses application of grammatical principles in controlled and free written composition. Not offered every semester. Prerequisite: 11.204 or equivalent.

- 11.207 Conversation: Daily Life and Customs in German-Speaking Countries (3) - Emphasizes student participation in prepared and free-speaking activities on daily life in German-speaking cultures. Outside readings and oral reports assigned. Grammar reviewed when necessary. Not offered every semester. Prerequisite: 11.204 or equivalent or concurrently with 11.204 with consent of the chairperson.
- 11.211 German Culture and Civilization I (3) - Provides an understanding of the geography, government, customs, education, arts and history of the German-speaking countries, as well as a vivid sense of the current scenes in these countries. Taught in English; knowledge of German not required. Special projects for German majors. Not offered every semester. Approved as a diversity course.
- 11.212 German Culture and Civilization II (3) - Continuation of 11.211. Taught in English; knowledge of German not required. Not offered every semester. Approved as a diversity course.
- 11.281-11.289 Special Topics (1-3) - Provides knowledge and training in fields not usually covered in regular courses. Content is determined by instructor and varies. Not offered every semester.
- 11.290 German Studies Abroad (1-6) - Prerequisite: Minimum of two semesters of German or consent of the chairperson.
- 11.309 Commercial German (3) - Acquisition of German commercial language and terminology in reading, writing and speaking. Background of business life in Germany today, in German culture and society. Not offered every semester. Prerequisite: 11.206 or equivalent.
- 11.331 Selected 20th Century Writers (3) - Current German writers for reading and cultural knowledge. Development of the four skills continues. Not offered every semester. Prerequisite: 11.204 or equivalent.
- 11.402 Contemporary Issues in German Media (3) - Further language development, especially of conversation, through discussion of current topics and issues selected from German language newspapers and magazines. Not offered every semester. Prerequisite: 11.207 or equivalent.
- 11.403, 11.503 Workshop(3) - Presents selected materials for practical use. Offered on demand only. Prerequisite: 11.206 or 11.207 or consent of the instructor.
- 11.420 Seminar: Mass Culture and High Culture (3) - Readings and discussion of cultural issues from 1870 to 1933. Background in culture, society and methods of cultural critique. Not offered every semester. Prerequisite: 300 level German or consent of the instructor.

- 11.422 Masterpieces of German Literature (3) - Examines selected masterpieces of German literature from the Middle Ages to the present with excursions in historic and socio-cultural contexts. Prerequisite: 11.206 or permission of the instructor. Not offered every semester.
- 11.490 Independent Study in German (1-9) - Provides for individual study of a particular aspect of German civilization, language or literature under supervision of a faculty member. Prerequisite: Consent of the instructor and the chairperson.

SPN (12) Spanish

- 12.100 Foundations in Spanish Language and Culture (3) - Seeks to develop novice proficiency with emphasis on intercultural communication in the context of the Spanish-speaking world. Language laboratory activities required.
- 12.101 Spanish I (3) - Develops the four language skills; acquaints students with elements of Hispanic culture. For students with no more than two years of Spanish. Requires practice in language lab.
- 12.102 Spanish II (3) - Continuation of 12.101. Reading and writing given additional emphasis. Prerequisite: 12.101 or equivalent.
- 12.203 Spanish III (3) - Continued development of skills and culture. Increased emphasis on reading and writing.
- 12.204 Spanish IV (3) - Continuation of 12.203. Prerequisite: 12.203 or equivalent.
- 12.205 Phonetics: Theory and Practice (3) - Seeks to improve student's ability to communicate effectively in spoken Spanish. Provides a detailed study of Spanish sound and intonation patterns through group and individual practice. Attends to individual pronunciation problems. Not offered every semester. Prerequisite: 12.102 or equivalent.
- 12.206 Structure of the Spanish Language (3) - Study of Spanish grammar and syntax through applied exercises and introduction to Spanish morphology. Not offered every semester. Prerequisite: 12.204 or equivalent.
- 12.207 Conversation: Hispanic Daily Life and Customs (3) - Emphasizes student participation in prepared and free-speaking activities about everyday life and customs in Spanish-speaking countries. Not offered every semester. Prerequisite: 12.204 or equivalent or concurrently with 12.204 with consent of the chairperson.
- 12.208 Conversation for Health Professionals (3) - Emphasizes development of speaking and comprehension for communication with Spanish-speaking health care clients. For health services students and other interested persons. Not offered every semester. Prerequisite: 12.204 or equivalent.

- 12.211 Spanish Culture and Civilization (Fall) (3) - Provides an understanding of Spain through geography, education, customs, fine arts and history. Taught in English; knowledge of Spanish not required. Special projects for Spanish majors. Approved as a diversity course.
- 12.212 Spanish-American Culture and Civilization (Spring) (3) - Provides an understanding and appreciation of the present and past life of the Spanish-American Republics. Studies Aztec, Maya and Inca cultures using films and outside readings. Taught in English; knowledge of Spanish language not required. Approved as a diversity course.
- 12.214 The Hispanic World Today (3) - Provides an understanding and appreciation of the present Spanish-speaking world, in both Spain, Spanish-American countries and Spanish-speaking groups in the U.S. through geography, history, economics, politics, education, customs and fine arts. Taught in Spanish for Spanish majors and other interested people. Not offered every semester. Prerequisite: 12.204 or consent of instructor.
- 12.281-12.289 Special Topics (1-3) - Provides knowledge and training in fields not usually covered in regular courses. Content is determined by instructor and varies. Topics may include Spanish for Travelers and Women in Spanish Literature. Not offered every semester. Prerequisite: Varies according to the nature of the topic.
- 12.290 Spanish Studies Abroad (1-6) - Prerequisite: Minimum two semesters of Spanish or consent of the chairperson.
- 12.306 Structure and Composition (3) - Review of syntax and structure with application in composition. Not offered every semester. Prerequisite: 12.206 or consent of instructor.
- 12.309 Commercial Spanish (3) - Acquaints students with basic skills in Spanish trade correspondence and commercial reading. Emphasizes vocabulary and commercial idioms. Stresses elementary knowledge of commercial life and methods. For business students and others who desire to enhance their knowledge of Spanish. Not offered every semester. Prerequisite: 12.204 or an equivalent proficiency.
- 12.331 Selected 20th Century Writers (3) - Reading and discussion of selected modern works. Not offered every semester. Prerequisite: 12.207 or an equivalent proficiency.
- 12.402 Issues in the Hispanic Media (3) - Provides for further development of language fluency through discussion of a variety of topics and current issues in Hispanic media. Practice in advanced conversation emphasized. Not offered every semester. Prerequisite: 12.207 or an equivalent proficiency.

- 12.421 Hispanic Prose (3) - Reading and discussion of prose works by selected Spanish and Spanish American writers, concentrating on 20th century authors. Taught in Spanish. Not offered every semester. Prerequisite: 12.207 or an equivalent proficiency.
- 12.422 Hispanic Theater and Poetry (3) - Reading and discussion of plays and poetry by selected Spanish and Spanish American writers, concentrating on 20th century authors. Taught in Spanish. Not offered every semester. Prerequisite: 12.207 or an equivalent proficiency.
- 12.430 Short Story (3) - Acquaints students with the short story as an expression of culture by Spanish, Spanish American, Chicano and Puerto Rican authors and sensitizes students to cultural values in the Hispanic world. Not offered every semester. Prerequisite: 12.207 or an equivalent proficiency.
- 12.490 Independent Study in Spanish (1-9) - Provides for individual study of a particular aspect of Hispanic civilization, language or literature under the supervision of a faculty member. Prerequisites: Consent of the instructor and the chairperson.

RUS (13) Russian

Administered by Department of Languages and Cultures.

- 13.101 Russian I (Fall) (3) - Develops the four language skills and studies elements of Russian culture. Requires practice in the language laboratory. Also offered in spring on demand.
- 13.102 Russian II (Spring) (3) - Continuation of 13.101. Prerequisite: 13.101 or equivalent.
- 13.103 Russian III (3) - Continued development of four skills. Emphasis on reading and culture. Not offered every semester. Prerequisite: 13.102.
- 13.104 Russian IV (3) - Continuation of 13.103. Not offered every semester. Prerequisite: 13.103.
- 13.290 Independent Study in Russian (1-9) - Individual study of a particular aspect of Russian civilization, language or literature under faculty supervision. Prerequisite: Consent of the instructor and the chairperson.

ITL (14) Italian

- 14.101 Italian I (3) - Develops the four language skills and studies the Italian culture. Stresses basic grammar. Not offered every semester.
- 14.102 Italian II (3) - Continuation of 14.101. Emphasizes reading and writing. Not offered every semester.

Japanese

The sequence of courses in Japanese is not offered every semester. Students should inquire in the Department of Languages and Cultures.

- 16.101, 16.102, 16.103, 16.104 Self-Instructional Learning Program in Japanese I (3) Japanese II (3), Japanese III (3) and Japanese IV (3) - self instructional learning.

CHI (16) Chinese

- 16.105 Chinese I (3) - Basic elements of Mandarin Chinese, with emphasis on spoken language. Introduces the Chinese culture. Requires practice sessions in language lab.
- 16.106 Chinese II (3) - Continuation of 16.105. Begin study of the Chinese characters. Requires practice sessions in language laboratory. Prerequisite: 16.105 or equivalent.
- 16.211 Foundations of Chinese Civilization (Fall) (3) - Chinese culture and civilization in historical perspective, with emphasis on art and philosophy. Taught in English. Approved as a diversity course.
- 16.212 China Today (Spring) (3) - Chinese culture and civilization today, with focus on art, political philosophy, customs and new directions. Taught in English. Approved as a diversity course.
- 16.400 Study Abroad (1-8) - By consent of the chairperson.

LAT Latin

- 18.101 Latin I (3) - Develops reading and writing skills; emphasizes correct classical pronunciation. Introduction to Roman culture and civilization. Not offered every semester.
- 18.102 Latin II (3) - Continuation of 18.101. Develops reading and translation skills; teaches classical references through selected readings. Not offered every semester. Prerequisite: 18.101 or equivalent.

For Music Majors

- 16.109 Language for Singing (1) - Practice and acquisition of correct pronunciation in French, German and Italian for voice majors and students singing in choirs. Spanish upon demand. Not offered every semester.

ENG (20) English

Administered by Department of English.

When 20.203 is listed as a prerequisite, any 100-level or 200-level literature course may be substituted as the prerequisite.

- 20.101 Composition I (3) - Study and practice of the principles of composition to improve proficiency in writing skills.
- 20.104 Honors Composition (3) - Similar to 20.101 but offered only to freshmen exempted from 20.101 on the basis of admission criteria. Study and practice in short and long essays and in research-supported writing. Students who successfully complete 20.104 are exempt from a second writing course requirement.
- 20.111 Language and Social Interaction (3) - A study of varieties of language, verbal and non-verbal and their communicative and social functions.
- 20.112 Practical Grammar and Usage (3) - A study of grammatical forms, rules and accepted usage of current written standard English, with practical application to improve diction, sentence structure and style.
- 20.131 The Bible as Literature (3) - Examination of literary types found in the Old and New Testaments and their profound influence on Western culture.
- 20.151 Introduction to Literature (3) - Exploration of literature as experience and the techniques by which it communicates in short story, novel, drama and poetry.
- 20.152 Literature and Society (3) - Readings selected for consideration of purposes, characteristics, issues and values of specific areas (such as business, psychology or science) from a humanistic perspective.
- 20.153 Folklore (3) - A survey of such traditional forms of oral literature as epic, ballad, folksong, folktale and superstitions examined in terms of origin, transmission and influence on literature.
- 20.154 Folklore of the American West (3) - A study of folklore genres, including legends, tall tales, ballads and customs of Native Americans, English, French and Spanish of the Trans-Mississippi West.
- 20.156 Popular Literature (3) - Study of one type of popular literature (such as detective fiction, science fiction, literature of terror or popular drama) and examination of its forms, conventions and ideas. Course content varies with each presentation of the course.
- 20.200 Writing Proficiency Examination (3) - A series of compositions written under examination conditions on topics provided by the staff. Faculty consultations and a writing laboratory are available for students in the course. Not for English majors. Prerequisite: 20.101.
- 20.201 Composition II (3) - Intermediate-level study and practice in composition, reinforcing and expanding basic writing skills. Instruction in short and long essays and in research-supported writing. Prerequisite: 20.101 or consent of department chairperson.
- 20.203 Approaches to Literary Study (3) - An introduction to writing about literature; a consideration of research techniques and types of literary analysis. Satisfies requirement for Composition II. Required for all English majors. Prerequisite: 20.101 or 20.104; open to all students. When 20.203 is listed as a prerequisite, any 100-level or 200-level literature course may be substituted as the prerequisite.
- 20.226 European Literature I (3) - Major Continental literary works in translation from the classical Greek period through the Renaissance, including Biblical backgrounds.
- 20.227 European Literature II (3) - Major Continental literary works in translation from the 17th century to the present.
- 20.236 American Literature I (3) - Survey of American literature from its colonial beginnings through the Civil War.
- 20.237 American Literature II (3) - Survey of American literature from the Civil War through the modern era.
- 20.246 British Literature I (3) - Survey of British literature from Beowulf through Samuel Johnson.
- 20.247 British Literature II (3) - Survey of British literature from the Romantics through the modern era.

- 20.256 Non-Western Literature I (3) - Study of a literature or literatures outside the traditions of European-American cultures. Approved for diversity requirement.
- 20.257 Non-Western Literature II (3) - Study of a literature or literatures outside the traditions of European-American cultures, differing from 20.256 by either the literature(s) or the works studied. Approved for diversity requirement.
- 20.280 Poetry (3) - Exploration of the nature of poetry in terms of its aims, forms and substance.
- 20.287 Black Women Writers (3) - Introduces students to a wide range of black women writers from the United States, Caribbean and Africa. Approved for diversity requirement.
- 20.288 Feminist Reading of Culture (3) - Teaches students to "read" culture through a wide range of "texts," including television and film and to analyze sexism, racism, classism and homophobia. Approved for diversity requirement.
- 20.300 Writing Children's Literature (3) - Approaches to and practice in writing children's books for publication. Consideration of various literary types and techniques with discussion of field research in writing nonfiction, fiction and poetry for children. Prerequisite: 20.384 or 20.385 or consent of the instructor.
- 20.301 Creative Writing: Fiction (3) - Original creative work in fiction; critical analysis by the instructor and the class in group discussion.
- 20.302 Advanced Composition (3) - Advanced study of writing nonfiction prose: form, style, audience, editing, evaluation. Prerequisite: 60 semester hours.
- 20.303 Creative Writing: Poetry (3) - Lecture and discussion concerning the fundamental theory and techniques of poetry writing together with writing and evaluation of poems in a workshop situation. Prerequisite: 20.280 or 20.379 or consent of the instructor.
- 20.306 Theory and Practice of Writing (3) - Introduction to new theories of writing and the teaching of writing including both study of and practice in the methods the theories require. Recommended for secondary education students in English, but open to all students interested in advanced work in writing. Prerequisite: 45 semester hours.
- 20.311 Structure of English (3) - Study of the sound patterns, morphology, word formation processes, semantics and syntax of modern English and of children's acquisition of their first language. Prerequisite: 45 semester hours.
- 20.312 History of the English Language (3) - Survey of the major developments in the English language from its Anglo-Saxon origins to the present. Prerequisite: 60 semester hours or consent of the instructor.
- 20.334, 20.335 Studies in American Literature (3) - Major American writers instrumental in shaping and interpreting the American experience. Writers vary with each presentation of the course. Prerequisite: 20.203.
- 20.341 Medieval Literature (3) - Major works of the Old and Middle English periods (the former in translation) that relate to a common theme, period or genre (such as drama or metrical romance), generally excluding the works of Chaucer. Prerequisite: 20.203.
- 20.342 The Renaissance (3) - The poetry and nondramatic prose of the 16th and 17th centuries (to 1660), excluding the works of Milton. Prerequisite: 20.203.
- 20.344 The Neoclassical Age (3) - The prose, poetry and drama of the period from 1660 through the end of the 18th century.
- 20.345 Romantic and Victorian Literature (3) - The poetry and prose of the late 18th and 19th centuries.
- 20.346, 20.347 Studies in British Literature (3) - Major writers instrumental in shaping and interpreting the British experience. Writers vary with each presentation of the course. Prerequisite: 20.203.
- 20.363 Shakespeare (3) - Study of Shakespeare's plays with emphasis on Shakespeare as poet and playwright and attention to conditions of the Elizabethan theater and history of the Shakespearean text. Prerequisite: 20.203.
- 20.364 Chaucer (3) - Chaucer's major poetry (with practice in speaking and reading Middle English) including consideration of the medieval social and intellectual contexts of his work. Prerequisite: 20.203.
- 20.365 Milton (3) - The poetry and prose of John Milton considered in the contexts of his age, his puritanism and his learning. Prerequisite: 20.203.
- 20.370 The English Novel (3) - History and development of the novel in England from its inception to the end of the 19th century. Prerequisite: 20.203.
- 20.372 Modern Novel (3) - Major modern novels, with emphasis on developments in fictional art. Writers vary with each presentation of the course. Prerequisite: 20.203.
- 20.374 Short Story (3) - The history, characteristics and techniques of the modern short story. Prerequisite: 20.203.
- 20.375 Renaissance Drama (3) - The plays of Shakespeare's predecessors and contemporaries and those of later Jacobean and Caroline dramatists. Prerequisite: 20.203.
- 20.377 Modern Drama (3) - Major Continental, English and American plays from Ibsen to the present with emphasis on contemporary attitudes, themes and style. Prerequisite: 20.203.
- 20.379 Modern Poetry (3) - A survey of contemporary poetry and poetic movements. Prerequisite: 20.203.
- 20.384 Literature for Children (3) - Studies the development of literature for children, including consideration of criteria for selecting literature for the classroom and library and methods for presenting literary works in an elementary classroom. Prerequisite: 60 semester hours.

- 20.385 Literature for Young Adults (3) - Critical discussion of literature aimed at young adult readers or popular with them, by such writers as S.E. Hinton, Robert Cormier, Judy Blume and Paul Zindel. Consideration of literary works for the secondary classroom with attention to the subject of censorship. Prerequisite: 60 semester hours.
- 20.386, 20.387 Studies in Contemporary Literature (3) - Study of a topic, author or movement significant in post-World War II literatures. Course content will vary. Prerequisite: 20.203.
- 20.388 Gender/Race/Class (3) - Analyzes identity-construction and cultural processes in constructing categories of gender, race and class. Approved for diversity requirement. Prerequisite: 20.203 or permission of instructor.
- 20.411 Modern Linguistic Theory (3) - A survey of modern developments in linguistics, including transformational-generative grammar; applications of theory to patterns of language acquisition; current adaptations of theory for presentation as grammar in schools. Prerequisite: 60 semester hours.
- 20.413 Language in American Society (3) - Review of social, political and philosophical perspectives on the historical development and current status of English and other languages in American society. Prerequisite: 60 semester hours.
- 20.431 American Romanticism (1820-1865) (3) - An advanced course in the significant literary and cultural movements and writers of the period 1820-1865. Special emphasis given to the works of Irving, Cooper, Emerson, Hawthorne, Poe, Thoreau, Melville, Douglass, Whitman and Dickinson. Prerequisite: 45 semester hours, including 20.203.
- 20.432 American Realism (1865-1914) (3) - Study of American literature between the Civil War and 1914. Content varies, but will include Twain, Howells, James, Wharton, Crane and Dreiser. Prerequisite: 45 semester hours, including 20.203.
- 20.433 American Modernism (1914-1945) (3) - Consideration of significant fiction, drama and poetry written between 1914 and 1945, with emphasis on writers and texts reflecting the social, political, intellectual and artistic diversity of the period. Prerequisite: 45 semester hours, including 20.203.
- 20.434 Contemporary American Literature (3) - Consideration of significant fiction, drama and poetry since World War II, with emphasis on writers and texts reflecting the social, political, intellectual and artistic diversity of the period. Prerequisite: 45 semester hours, including 20.203.
- 20.436 African-American Literature (3) - A detailed study of one of the three major areas in African-American literature: the African-American novel, the Harlem Renaissance or African-American Writers. Prerequisite: 45 semester hours, including 20.203.
- 20.481 Special Topics (3) - Study of a topic in literature; topic varies with each presentation of the course.
- 20.488, 20.489 Seminar (3) - An opportunity to explore, at an advanced level, a literary or linguistic subject not offered in regularly scheduled courses. Content determined by the instructor. Prerequisite: 60 semester hours.
- 20.492 Literary Theory and Criticism (3) - Study of traditional literary criticism from Aristotle to the present, as well as of contemporary trends in literary theory, at an advanced level. Prerequisite: 60 semester hours.
- 20.493 Bibliography and Literary Research (3) - Investigation of methods of literary scholarship and study of book history and production with practice in preparing specialized bibliographies and planning scholarly projects. Prerequisite: 60 semester hours.
- 20.494 Rhetoric of Literature (3) - Study of major rhetorical devices, the nature and range of rhetorical designs; identification of these language devices in drama, prose and poetry; and discussion of their effects on the reading audience. Prerequisite: 60 semester hours.
- 20.495 Independent Study in English (3-6) - Prerequisite: 60 semester hours.
- 20.496 Literary Study Abroad (3) - A travel-study course for English majors and non-majors, concentrating on a writer or literary problem in the perspective of the relevant disciplines. Includes meetings with writers and scholars and the use of on-site resources. Area of emphasis determined by the instructor.
- 20.497 English Internship (1-12) - A work-study program. Open to English majors; others by departmental consent. Prerequisite: 60 semester hours completed.

COM (25) Communication Studies

Administered by Department of Communication Studies and Theatre Arts.

- 25.103 Public Speaking (3) - Introduces students to the essentials of effective oral communication and techniques for acquiring it and provides practical experience wherein these principles and techniques may be applied.
- 25.104 Interpersonal Communication (3) - Introduces students to the process of interpersonal communication. Students explore the role of conversations and relationships to enhance their participating in daily interactions and their critical awareness of the process.

- 25.108 Forensic Practicum(0-1) - Participation in forensics: debate or individual speaking events. Grades are awarded each semester. May be repeated for maximum of 3 semester hours of credit. First semester register for 25.108.01. Second semester register for 25.108.02. Participation for two semesters for one semester hour of credit.
- 25.205 Understanding Social Influence (3) - Highlights major trends in the study and practice of influence-seeking communication from the ancient Greek sophists to the contemporaries and the post modern.
- 25.206 Oral Interpretation of Literature (3) - Provides practice in skills necessary for conveying intellectual and emotional meanings in poetry and prose read to an audience.
- 25.207 Investigating Communication (3) - Introduces students to topics that communication scholars study, research questions that are typically posed, planning and design of studies, various methodologies, analysis of results and how to report these results in a meaningful manner.
- 25.210 Organizational Communication (3) - Explores the theoretical and the practical aspects of how communication patterns develop in organizations and what effect these patterns have on various organizational processes and outcomes.
- 25.215 Communication Theory (3) - Surveys the dominant theories of interpersonal relationship management, both general theories and those specific to particular interests.
- 25.218 Discussion (3) - Presents a survey of and practice in types and patterns of public discussion and study of informal discussion characteristics and application. .
- 25.220 Intercultural Communication (3) - Explores communicating in cultural contexts and general principles for communication across cultures with the goal of becoming competent communicators. Approved for diversity requirement.
- 25.306 Computer Applications for Professional Communicators (3) - Introduces students to how computers are used in the field of communication. Students learn how to design and present effective electronic presentations, the theory and procedures of desktop publishing and how to use the Internet. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.307 Communication for Business Professionals (3) - Studies business and professional communication, salesmanship (selling skills and methods), conference and interviewing. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.309 Gender Issues in Communication (3) - Presents a broad range of theories concerning the nature of differences in communication behavior between the sexes and the presumed origins of such differences. Examines communication theories about relationships between the sexes in families and other intimate associations, in business roles and in society at large. Primary focus is on contemporary U.S. society, but some historical and cross-cultural contrasts will be explored. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.313 Communication and Conflict (3) - Analyzes the role of communication in the generation, process and management of destructive and constructive conflict on interpersonal, small group organizational and societal levels. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.315 Persuasion (3) - Examines the way people use symbols to influence other people. Provides practice in presenting and evaluating persuasive messages. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.321 Argumentation (3) - Examines basic principles of argument and evidence. Provides practice through presentation and refutation of arguments in debates on controversial issues. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.406 Evaluating Communication (3) - Provides an intensive examination of the philosophy, theory and practice of rhetorical criticism — the analysis, interpretation and evaluation of communication designed to influence human thought and/or action. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.407 Interviewing (3) - Students explore the interview as a specific communication event, with its own rules, procedures and strategies. Acquaints students with a variety of interviewing contexts, such as selection, performance appraisal, informational, helping, sales and health care, by blending current theory and research with practical skills and applications. Students prepare and conduct interviews and receive feedback on oral and written performances. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.

- 25.413 **Community Leadership (3)** - Identifies the communication skills that leaders need to influence the information environment and the collective action of organizational members. Special attention is given to the flexibility necessary for functional leadership in a diverse society. By developing communication skills, students are empowered to accept leadership positions in personal, business, community, government and media contexts. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.417 **Evaluating Media Influence (3)** - Develops and applies a media perspective for criticism. Examines the ways in which the structural and formatting tendencies of communication technologies privilege different perceptual modes, behaviors and lifestyles. Students explore and examine the ways in which each medium of communication structures and formats experiences and understandings. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.419 **Communication in the Family (3)** - By promoting awareness of family communication issues and practices and providing training in relationship enhancement, the course offers students the knowledge and skills necessary to build, adjust and maintain more functional family interaction processes. Considers the communication processes within the family as well as the extent to which they influence or are influenced by larger social systems. Special attention given to the diversity of family experience. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.423 **Communication Training in Organizations (3)** - Advanced presentation skills for students exploring career opportunities as communication trainers in an organization or as independent training consultants. Includes information about such topics as needs assessment and task analysis, theories of adult learning, systems for developing instructional objectives, preparation and presentation of workshop sessions and evaluation of outcomes. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.424 **Corporate Communication (3)** - Advanced writing skills for students exploring career opportunities as a publicist or corporate writer in an organization or as an independent communication consultant. Includes information about organizational planning, audience analysis, professional guidelines and writing standards, qualitative and quantitative research, design and layout of publications and use of computers in publication and presentation. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.425 **Communication in Relationships (3)** - Acquaints students with the theories and methods used to examine the processes of communication in interpersonal relationships. Students review general principles of human communication, address communication skills considered important for effective communication in relationships, analyze communication behavior in the formation, maintenance and dissolution of interpersonal relationships, explore interpersonal communication theory in specific settings and discuss several philosophical orientations to interpersonal communication. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.426 **Leadership and Team Building (3)** - An intensive survey of theory and research pertaining to working in small groups. Includes a focus on practical knowledge required to become a productive participant and leader in small group contexts. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.470 **Independent Study (1-3)** - Provides for individual work and study in one of the areas of rhetoric and communication. Student finds a faculty sponsor, prepares a written proposal that requires departmental recommendation and the dean's approval, arranged through the chairperson. See section on Independent Study.
- 25.492 / 25.493 / 25.495 **Advanced Studies in Communication (3)** Investigates significant aspects of communication studies. Topics vary by semester and include nonverbal communication, political communication and cultural foundations of the information society. Consult the schedule booklet or the listed instructor for further information. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.494 **Advanced Studies in Communication: Diversity Focus (3)** - Investigates significant aspects of communications studies. Topics are approved as diversity courses. Consult the schedule booklet or the listed instructor for further information. Prerequisites: 25.103 or 25.104; at least one of 25.205, 25.210, 25.215 or permission of the instructor.
- 25.497 **Internship in Communication (3-12)** - Integrates classroom experience with practical work experience in industrial, business or government work settings. Students must establish academic integrity of their proposed experience and its relevance to coursework in the major. Contact departmental internship coordinator to obtain detailed information and forms.

THE (26) Theatre Arts

Administered by Department of Communication Studies and Theatre Arts.

- 26.102 **Introduction to Theatre Arts (3)** - Presents a survey of the literature, production and criticism of the theatre. Required for theatre majors.

- 26.108 Theatre Practicum (0-1) - Participation in plays: acting or technical work. Grade awarded each semester. Participation for two semesters for 1 semester hour of credit. May be repeated for maximum of 3 semester hours.
- 26.112 Fundamentals of Acting (3) - Introduces the theories and techniques of acting. Provides for individual and group exercises.
- 26.200 Experimental Movement (3) - Exercises and methods explored to support the vocal and physical demands of performance for the stage.
- 26.209 Theatre Appreciation (3) - Presents a survey of all aspects of theatre: acting, criticism, design, directing, history and production.
- 26.211 Theatre Production/Stagecraft (3) - Studies basic stagecraft: scene construction, painting, drafting and crewing of a show. Laboratory work required.
- 26.215 History of the Theatre (Spring) (3) - Surveys structures, production practices, plays and the theatre's function in societies from ritual beginnings through the 19th century.
- 26.219 Children's Theatre (3) - A survey of history, theory and production of theatre for young audiences.
- 26.251 Theory of Stage Lighting and Design (3) - Provides for intensive study of theory and design of lighting of a production supplemented by applied work on productions. Laboratory hours required.
- 26.311 Screen Design (3) - An introduction to basic movements and the methods, approaches, tools, materials and visual concepts of scene design.
- 26.316 Play Directing (3) - An overview of the principles and techniques of directing and the collaborative process with an introduction to script analysis needed for concept development. Prerequisite: One course in theatre.
- 26.321 Theatre and Stage Management (3) - Prepares students for professionalism in production of plays and the management of a theatre company.
- 26.340 Scriptwriting (3) - Studies dramatic structure, types and styles of drama. Students are required to write scripts for stage, film, radio or television. Prerequisite: One writing course or consent of the instructor.
- 26.341 Fundamentals of Theatre Design (3) - An introduction to the elements of designing scenery, costumes and lighting as they relate to the components of a theatrical production.
- 26.345 Costume Construction (3) - Basic techniques and approaches to costume construction for the stage.
- 26.414 Costuming for the Stage (3) - The study and application of costume design for the theatre including methods, tools, materials and visual concepts.
- 26.416 Modern Theatre (3) - Continues the study of theatre history from 19th century through the theatre of today. Prerequisite: 26.215 or consent of instructor.

- 26.451 Advanced Acting (3) - Character analysis based on scriptwork. Students begin to focus on particular areas of development.
- 26.470 Independent Study (1-3) - Provides for individual work and study in one of the areas of theatre. Student finds faculty sponsor and prepares a written proposal, which requires departmental recommendation and dean's approval, arranged through the chairperson. See Independent Study.
- 26.490 Seminar: Theatre (3) - Provides for a concentrated study of an individual artist, a period or a movement in theatre. Offered on demand. Prerequisite: 9 semester hours in theatre or consent of the instructor.

MSC (27) Mass Communications

Administered by Department of Mass Communications.

Note: Prerequisites may be waived by an instructor subject to the concurrence of the departmental chairperson.

- 27.110 Mass Communications and the Popular Arts (3) - A comprehensive overview of mass communications and their relative impacts on society and culture. Covers magazines, newspapers, motion pictures, radio, television, public relations, advertising, ethical codes and media regulations.
- 27.190 History of Film (Spring) (3) - An overview of the history and growth of the motion picture. Studies film genres, historical figures, technicians and performers. Students must view approximately 15 films during the course in laboratory showings.
- 27.230 Newswriting (3) - Outlines the "theory" and techniques of news reporting; the historical development of reporting, its practices and principles and the organizational patterns of news stories and gathering of news. An elementary outline of defamation and libel is included. Student should be able to type 30 to 40 words per minute before enrolling in this course.
- 27.241 Mediagraphics (3) - Computer-generated design and layout problems and applications for printed and visual material including newspaper and magazine pages as well as advertising layouts and visual presentations for video and television material.
- 27.251 PR: Theory and Practice (3) - An introduction to the development, principles, theories and practice of public relations as a social and organizational implement. Looks briefly at the communication process, publicity, community relations and public affairs practice.
- 27.261 Principles of Advertising (3) - Introduces students to the basic objectives and procedures of advertising in a modern economy. Examines the variety of components and methods used to achieve specific objectives in advertising campaigns and the type of instruments used for advertising.

- 27.271 Media Operations (3) - Concentrates on the knowledge and physical use of technical requirements that operate the growing range of equipment needed to produce contemporary radio, television and video programs.
- 27.275 Cinema Appreciation (Fall) (3) - Examines film form, theory and criticism to bring about a better understanding and greater appreciation of the motion picture. Enhances the visual appreciation required in modern media. Approximately 15 films viewed.
- 27.297 Mass Communications Practicum (3) - Requires participation in film, television, radio or print productions in any of the sequences offered in the department or other departments on campus having similar needs relevant to mass communications.
- 27.310 Media Law (3) - Surveys legal restraints that influence the nature and content of mass media messages and business practices. Covers historical developments, criminal libel, sedition, defamation, privacy, copyright, obscenity, shield law, freedom of information, free press-free trial, unique broadcast policies, advertising and antitrust problems.
- 27.315 Social Foundations of Mass Communications (3) - An interdisciplinary study of the historical, philosophical, social, economic and legal foundations of American mass media as a base for study of contemporary mass media. Examines media from the perspective of journalists, owners, audience and government.
- 27.334 Editing (3) - Designed to improve writing for newspapers, magazines and brochures. Indicates particular types of styles most used; emphasizes good, tight copy in news stories; offers practice in headline writing and some elementary layout and design including photo editing. Suggests some defenses to possible defamation and libel problems for copy editors. Prerequisite: 27.230.
- 27.340 Feature Writing (3) - Outlines basic requirements for feature-type articles for newspapers and magazines. Studies various techniques used to gather information and to develop a range of feature articles. Includes practical work as well as the study and discussion of published articles and marketing strategies. Prerequisite: 27.230.
- 27.352 Publicity and Public Relations (3) - Comprehensive study of various publicity techniques used in public relations efforts of business, government and nonprofit organizations. Students prepare press releases, public service announcements, speeches, slide programs or other appropriate communication vehicles. Prerequisite: 27.251.
- 27.360 Mass Media Processes and Effects (3) Locates specific issues in mass media exposure, identifying various ways in which individuals and the whole body of society depend on information provided by the mass media. Prerequisite: junior standing.
- 27.366 Design in Advertising (3) - Principles of advertising layout and design in print and broadcasting. Includes hands-on experience in layout, typography and paste-up in addition to theory. Prerequisite: 27.261.
- 27.367 Television Acting and Directing (3) - Provides instruction in acting and directing for television. Includes laboratory hours. Prerequisite: 27.271.
- 27.371 Broadcast Journalism (3) - Studies technical elements of broadcast writing, script formats and nondramatic material; provides opportunities to study, write and announce news, commercials and other broadcast material. Prerequisite: 27.271 and 27.230.
- 27.375 Broadcast Programming and Management (3) - Studies television and radio management and programming; examines each medium as a business and the elements of success or failure. Studies some basic economics of media and methods of handling this material as well as codes, laws and community interests. Prerequisite: Junior standing.
- 27.390 Film and Video Production (3) - Reviews the basic processes of filmmaking in an introductory but comprehensive manner. Concentrates on making short silent films and requires laboratory hours and field work by arrangement. Students provide their own film stock for shooting and pay film processing costs. Prerequisite: 27.271.
- 27.420 Audience Analysis (3) - Explores the theoretical distinction between the social world of actual audiences and the discursive constructs of mass media audiences. Charts the development of an ethnographic understanding of mass media audiences that focuses on the diverse, the particular and unpredictable in everyday life. Stresses design and construction of various research methods on mass media audiences. Prerequisites: junior standing.
- 27.435 Journalism Seminar: Special Topics (3) - Studies a variety of ethical and practical problems in journalism. Topics may vary each semester. May be repeated with different topics to a maximum of three seminars with approvals of adviser and chairperson. Prerequisite: 27.230.
- 27.440 Public Affairs Reporting (4) - An advanced reporting course on the role of public affairs in news reporting in mass media. Concentrates on a number of governmental "beats" most susceptible to news generation. Students learn basic abilities consistent with entry-level professional reporting requirements in public affairs coverage, including courts, police and government. Prerequisite: 27.340.

- 27.446 Magazine Editing and Production (4) - Acquaints students with principles and techniques of magazine production including manuscript selection and editing, advertising, design, production, circulation, promotion and various business operations. Study of the nature of magazines as part of a mass communications system. Each semester students produce a community/regional consumer magazine. Prerequisites: 27.334, 27.340 or consent of the instructor.
- 27.455 Public Relations Cases and Problems (3) - A study of the use of publicity as a particular element of public relations. Examines specific publicity cases and requires practical hands-on production of written material. Prerequisite: 27.352.
- 27.466 Advertising Media and Campaigns (3) - Study of the use of advertising media, methods of selection and the skills and background required for media buying and traffic planning. Basic principles and applications of advertising research and campaign planning, preparation and presentation are taught in a problem-solving format. Prerequisite: 27.366.
- 27.478 Independent Study (1-3) - Provides for individual work and study in an area of mass communications concentration. Students find a faculty sponsor/adviser and prepare a written proposal, which must have departmental approval and approval of the dean, College of Arts and Sciences.
- 27.480 Telecommunications Production Workshop: Special Topics (3) - A practical workshop program in which telecommunications majors undertake specific instruction on the technical aspects of their major. Topics may change from semester to semester and students may be required to work on specific projects, such as telethons or television news, as part of their workshop programs. Workshops may be repeated provided topics change. Instructor's and department chairperson's approvals required.
- 27.482 Mass Communications Seminar (3) - A seminar program that studies ethical and social problems resulting from the pervasiveness of new technologies. Topics may change from semester to semester. Students may repeat seminars, subject to a change in topic and with the approvals of the instructor and department chairperson.
- 27.485 RTF Authorship Theory and Practice (3) - A study of the construction of documentary and dramatic material in terms of telecommunications/film semiotics with an overall survey of production and business problems. A project course designed primarily for film, television and radio majors moving into mass communications production seminars. Prerequisite: 27.271.

- 27.497 Mass Communications Internship (3-9) - Open to junior and senior majors with a GPA of 2.75 in the major, although consideration will be given for other practical experience students may have. May include on-campus or off-campus study of a particular project arranged by the student, adviser and department chairperson. Interns are expected to have completed several of their basic specialist courses prior to applying for internships. Projects must be submitted in writing at least a month before the project is expected to begin and must be approved by the student's adviser and department chairperson. Course may be repeated within catalog regulations. Internships will become a compulsory part of the mass communications program. Credit is based on 3 semester hours for each 10 hours of work undertaken per week per semester. Limit is 9 total semester hours for internships. Special arrangements must be made for summer internships.

PHL (28) Philosophy

Administered by Department of Philosophy.

- 28.110 Critical Thinking (3) - Designed for students to learn how to think critically. Emphasis is on the construction and evaluation of arguments. Surveys several forms of argument including inductive, deductive, analogical and legal reasoning.
- 28.111 Introduction to Philosophy (3) - Presents reflective inquiry into selected problems of general philosophic interest. Considers the types of knowledge, individual and social values, the nature of reality and the existence of God.
- 28.270 Logic (3) - The study of formal deductive reasoning, course covers the nature of argument, Aristotelian term logic, stentential logic, predicate logic and quantification and proof theory. Students construct formal proofs and translate from natural language into logical formulas.
- 28.271 Logic and Computing (3) - Introduces fundamental areas where logic and computation intersect including the propositional calculus and the design of logic circuits; validity and proof; Turing machines and logic programming.
- 28.297 Ethics (3) - Studies ethical theory focusing on such issues as ethics as a branch of knowledge, egoism vs. altruism and role of intentions and consequences in moral judgments. Reviews theories such as relativism, utilitarianism and Kantianism. Investigates concepts of "rights"; and "justice".
- 28.321 Plato and Aristotle (Fall) (3) - Studies the origins of Western philosophy in ancient Greece. Examines Plato's philosophical writings in light of pre-Socratic speculation on one hand and in terms of Aristotle's criticisms and developments on the other.

- 28.324 Descartes to Kant (Spring) (3) - Examines the writings of the 17th and 18th century philosophers: Descartes, Hobbes, Locke, Berkeley, Hume, Kant and others. Topics include: the nature of reality, the sources and limits of knowledge, the relation between mind and body and the possibility of a rational basis for religious belief.
- 28.328 Existentialism (Spring/even-numbered years) (3) - Studies the writings of philosophers and theologians such as Kierkegaard, Nietzsche, Husserl, Sartre and Tillich. Major themes include human subjectivity, human freedom, alienation and meaning.
- 28.329 20th Century Philosophy (Fall/odd-numbered years) (3) - Examines 20th century philosophical movements. Emphasizes the relation between language and philosophy, particularly views about truth, free will, the nature of morality and religion and the nature of mind.
- 28.290 Medical Ethics (3) - Investigates moral issues that arise in such medical contexts as human experimentation, death and dying, medical care and its distribution, genetic engineering and the definition of health and illness.
- 28.292 Contemporary Moral Problems (3) - Investigates some of the major contemporary (and perennial) moral problems: abortion and the rights of the fetus; pornography and its control; crime and its punishment; obedience to laws; discrimination based on race and sex; decision-making procedures; social justice; drugs, suicide and euthanasia; freedom and its limits.
- 28.295 Business Ethics (Spring/even-numbered years) (3) - Review of moral canons in relation to business practice. Moral concepts are applied in analyzing situations. Utilitarianism, Kantianism and contemporary Egalitarianism are introduced as aids in decision making. General principles and concrete cases considered.
- 28.303 Philosophy of Science (Fall/even-numbered years) (3) - Analyzes the logic of inquiry in the natural and social sciences; the nature of scientific explanation, problems of causality, measurement, prediction and verification. Considers case studies, such as evolutionary theory.
- 28.404 Philosophy of the Social Sciences (3) - Examines philosophical problems in the social sciences including objectivity, classification, explanation, the nature of laws and the nature of social facts.
- 28.405 Philosophy of Law (Fall/even-numbered years) (3) - Examines the theoretical background of the law and legal systems. Encourages students to develop their own views about the proper use of the law. Topics include the concepts of "law" and "legal system", limits of the law and justification of punishment.
- 28.406 Philosophy of Religion (3) - Presents a critical analysis of the origins and nature of faith. Emphasizes types of religion, evidence supporting religious belief and problems in and challenges to religion.
- 28.407 Contemporary Political Philosophy (Fall/odd-numbered years) (3) - Studies the nature of the good and just state, the limits and powers of the state. Investigates competing theories of neo-Aristotelianism, utilitarianism, contractarianism, libertarianism, Marxism and anarchism. Addresses questions concerning the obligations of an individual citizen to the state.
- 28.408 Feminist Philosophy (3) - Explores the major trends in feminist philosophy including liberal, Marxist, socialist, radical and psychoanalytic approaches. Explores such questions as whether women's experience differs from men's and the extent to which male domination informs woman's experience. Considers recent feminist attempts to articulate an emancipating standpoint.
- 28.419 Theory of Knowledge (Spring/odd-numbered years) (3) - Inquires into the problem of knowledge, certainty and skepticism. Reviews theory of perception; discusses concepts of meaning and truth.
- 28.420 Metaphysics (3) - Introduces the main themes and literature in contemporary metaphysics. Issues explored include why there is something rather than nothing? Are there properties, numbers, propositions and sets? What are holes, surfaces and boundaries? Can an object change its parts and remain the same? Prerequisite: any philosophy course other than 28.110, 28.212 or 28.213 or permission of the instructor.
- 28.418 Contemporary Philosophy of the Mind (Fall/even-numbered years) (3) - Explores the philosophical foundations of the interdisciplinary field of cognitive science. Topics discussed include contemporary scientific solutions to the mind-body problem, the possibility of artificial intelligence and the nature and success of cognitive explanations in psychology.
- 28.470 Independent Study in Philosophy (3-6) - Provides for individual study of a particular philosophical problem under the guidance of the staff. Emphasizes independent research on topics selected by the student and the faculty member. Course may be taken twice. Prerequisite: 6 semester hours of philosophy. See section on Independent Study.
- 28.471 Seminar (3) - Studies selected problems in philosophy.

ART (30) Art

Administered by Department of Art.

- 30.101 Introduction to Art (3) - Examines major works of art and architecture and the cultural forces that shaped them from ancient times to the present, from a global perspective.
- 30.205 Children's Art (3) - Provides encounters with the art of children and ways to promote attitudes of discovery and invention, with emphasis on growth of expression.
- 30.385 Philosophy and Psychology of Art (3) - Studies major philosophical points of view governing an understanding and criticism of the arts, past and present.

ARH (31) Art History

Administered by Department of Art.

- 31.215 American Art History (3) - Studies the history of visual arts in America.
- 31.225 History of Architecture (3) - Presents a study-survey of great architectural works of the past and the present including examples of both East and West.
- 31.235 Ancient and Medieval Art (3) - Studies the history of the visual arts on the European continent from the prehistoric era up to and including the Late Gothic.
- 31.236 Art from the Renaissance Through Impressionism (3) - Studies the history of the visual arts beginning with the Italian Renaissance up to and including French painting of the 19th century.
- 31.324 History of Photography (3) - Surveys the history of photography from its invention in 1839 to the present. Includes development of photography as a medium of aesthetic expression, technical evolution of photography and photography's impact on both culture and society.
- 31.345 Art History of the Near East (3) - Studies the history of the visual arts of the Islamic and the Mesopotamian worlds.
- 31.346 Art History of the Far East (3) - Studies the history of the visual arts of India, China, Japan and Southeast Asia.
- 31.355 History of Modern Art (3) - Examines movements in art from mid-19th century France to the contemporary United States.
- 31.365 Italian Renaissance Art (3) - Addresses the painting, sculpture and architecture of the Renaissance in Italy with a view toward historical and social context, patronage and theory.
- 31.366 Northern Renaissance Art (3) - Introduces students to the history of the visual arts in Northern Europe from c. 1375 to 1575, during the period termed "The Renaissance." Examines major trends in painting, manuscript illumination, sculpture, printmaking and architecture in France, the Netherlands and Germany and explores the social and cultural factors that shaped the arts of the period.
- 31.373 Romanesque and Gothic Art (3) Introduces students to the history of the visual arts in northern Europe from c. 1050 to c. 1400 during the periods termed "Romanesque" and "Gothic." Examines major trends in painting, architecture, sculpture, drawing, manuscript illumination, metal and ivory work, stained glass and tapestry and explores the social and cultural factors that shaped the arts of these periods.
- 31.375 Independent Study in Art History (3) - Research and scholarship on a selected, approved topic in art history under the supervision of a faculty member, resulting in a publishable paper.

- 31.390 Foreign Study Italy (3) - An examination of the art of Italy, particularly the Renaissance, with special reference to its physical and historic context, through studying original works of art in Italy, on site whenever possible. Summer only.
- 31.395 Visual Aesthetics (3) - A seminar emphasizing artistic relationships and theories of aesthetics and art criticism.
- 31.450 Perspectives on Museums (3) - Addresses the social and cultural history of art museums from the late Middle Ages through the present. Introduces the basic purposes and responsibilities of museum - collecting, preserving and interpreting - and the duties of museum staff. Explores museum ethics, training, exhibitions and technology.
- 31.451 The Museum Exhibition (3) - Provides hands-on experience by organizing and installing an exhibition in Haas Gallery of Art. Trains students in gallery design, handling and assessing physical conditions for works of art, writing educational materials, providing public functions such as tours and critically evaluating installations in other museums.

ARS (32) Art Studio

Administered by Department of Art.

Level I courses are open to all students.

- 32.111 Drawing I (3) - Examines various approaches toward drawing and explores the use of a variety of drawing materials. Studio practice and class critiques address each person's power of observation, craftsmanship, self-expression and growth.
- 32.151 Three-Dimensional Design (3) - Introduction to the basic elements and principles of design such as the organization of visual elements and color, with emphasis on three-dimensional design.
- 32.152 Two-Dimensional Design (3) - An introduction to the basic elements and principles of design such as the organization of visual elements and color, with an emphasis on two-dimensional design.
- 32.195 Computer Art Graphics (3) - An introductory course exploring the potential of the computer as a tool to create fine art. Stresses images based on current computer technologies and use of software and computers to create new kinds of images. Emphasis on using technologies with a fine arts approach.
- 32.201 Ceramics I (3) - Introduces the processes of making and firing ceramic objects.
- 32.202 Ceramics II (3) - Affords students the opportunity to become more involved by selecting their own methods of work. Prerequisite: 32.201.
- 32.210 Life Drawing (3) - Examines various approaches to drawing the figure. Students study anatomy and continue to develop technical facility with a variety of media. Contemporary and historical figurative concerns are examined.

- 32.212 Drawing II (3)** - Continues exploration of attitudes and materials stressing composition and form. Includes work from the human skeleton and linear perspective. Prerequisite: 32.111.
- 32.221 Fabric Design I (Fall) (3)** - Introduction to a variety of methods, approaches, tools, materials and visual concepts in designing with fibers.
- 32.222 Fabric Design II (Fall) (3)** - Continuation of 32.221 with limited areas of concentration selected by each student. Professional methods, approaches and attitudes discussed. Prerequisite: 32.221.
- 32.231 Painting I (3)** - Introduction to the methods, materials and concepts of painting. Provides exploration of and increased sensitivity to one's environment through color.
- 32.232 Painting II (3)** - Devotes attention to the development of the technical skill inherent in the formation of images. Includes the study of the landscape as a concept in painting. Prerequisite: 32.231.
- 32.241 Sculpture I (3)** - Explores three-dimensional artistic expression with an emphasis on introducing students to basic sculptural materials.
- 32.242 Sculpture II (3)** - Promotes continued development in the use of materials and processes; strives for unique individual expression. Prerequisite: 32.241.
- 32.251 Weaving I (Spring) (3)** - Provides an introduction to weaving including foot-powered looms and off-loom techniques. Weaves, fibers, spinning and looms will be part of the studio experience. Prerequisite: 32.152 or consent of instructor.
- 32.252 Weaving II (3)** - Requires a loom-controlled sampler plus continued experience in weaving techniques and artistic decision dealing with fibers. Prerequisite: 32.251.
- 32.261 Graphics I: Printmaking (3)** - Introduction to the methods, materials and concepts of graphic art through exploration of basic printmaking techniques.
- 32.262 Graphics II: Printmaking (3)** - Emphasis on color printmaking and color registration procedures. Provides a concentration in serigraphy and intaglio techniques. Prerequisite: 32.261.
- 32.275 Crafts I (3)** - Introduction to a varied array of crafts, methods, tools, materials, techniques and artistic concepts.
- 32.276 Crafts II (3)** - Provides a continued exploration of selected in-depth crafts processes and concepts on a more professional basis. Prerequisite: 32.275.
- 32.281 Photography I (3)** - Introduction to black and white photography as a medium of visual expression. Technical emphasis on fundamental camera and exposure controls and introduction to darkroom printing techniques. Photographic style, composition and theory discussed. Students must have a 35mm camera and provide their own film and paper.
- 32.282 Photography II (3)** - Continues exploration of black and white fine art photography. Emphasis on refining exposure and printing skills. Introduces zone system metering, medium format photography and alternative photographic processes. Students must have a camera and provide their own film and paper. Prerequisite: 32.281.
- 32.303 Ceramics III (3)** - Provides student an opportunity to specialize through the pursuit of making an art object. Prerequisite: 32.202.
- 32.304 Ceramics IV (3)** - Requires students to be responsible for making, firing and showing their own wares. Prerequisite: 32.303 and permission of the instructor.
- 32.313 Drawing III (3)** - Entails studio practice, outside assignments and critiques in pursuit of self-discovery and personal expression. Each student completes an individual project. Prerequisite: 32.212.
- 32.314 Drawing IV (3)** - Continues studio practice and outside assignments Critiques stress individuality and deep involvement of personal expression. Each student pursues an individual project. Prerequisite: 32.313 and permission of the instructor.
- 32.323 Fabric Design III (Fall) (3)** - Provides a continuation of Fabric Design II with concentration in one area selected by the student. Focus is on refining one's craft, visual perception and professional attitude. Prerequisite: 32.222.
- 32.324 Fabric Design IV (Fall) (3)** - Presents a continuation of Fabric Design III with each student functioning in a highly independent and professional manner in one area. Prerequisite: 32.323 and permission of the instructor.
- 32.333 Painting III(3)** - Provides development toward maturity of study and statement. Includes study of the figure as a concept in painting. Prerequisite: 32.232.
- 32.334 Painting IV (3)** - Provides advanced work planned for individual needs. Paintings are structured from experiences based on previous development. Prerequisite: 32.333 and permission of the instructor.
- 32.343 Sculpture III (3)** - Focuses on the expansion of expression and its relationship to sculptural processes. Prerequisite: 32.242.
- 32.344 Sculpture IV (3)** - Enables advanced, independent work toward a maturing, personal expression in sculpture. Prerequisite: 32.343 and permission of the instructor.
- 32.353 Weaving III (Spring) (3)** - Provides continued experience in weaving techniques with emphasis on in-depth production, two-dimensional or three-dimensional. Prerequisite: 32.252.
- 32.354 Weaving IV (Spring) (3)** - Develops an individualistic approach to weaving with emphasis on in-depth production. Prerequisite: 32.353 and permission of the instructor.
- 32.363 Graphics III: Printmaking (3)** - Exploration of mixed media printmaking methods and concepts. Emphasizes photographic and lithographic techniques. Prerequisite: 32.262.

- 32.364 Graphics IV: Printmaking (3) - Exploration of experimental printmaking. Emphasis on personal expression. Prerequisite: 32.363 and permission of the instructor.
- 32.383 Photography III (3) - Requires students to develop personal photographic projects to produce during the semester. Emphasizes individual exploration of black and white photographic materials and processes. Students must provide a 35 mm camera, film and paper. Prerequisite: 32.282.
- 32.384 Photography IV (3) - Requires students to produce personal photographic projects resulting in final portfolios and an exhibition of fine art photographic prints. Students must provide a 35mm camera, film and paper. Prerequisite: 32.383 and permission of the instructor.
- 32.395 Art and Culture of France (3) - Provides a study-tour of France with specific attention to French art seen in relation to its social and cultural environment. Features a new theme and visits to related areas each time course is offered. Past themes include "The Age of Francis I," "The Art of Provence," and "The Normandy Influence."
- 32.475 Independent Study in Studio Arts I (1-3) - Allows individualized independent study in a selected studio area. Amount of course credit awarded is determined by the instructor on the basis of the substance and depth of the project to be undertaken. Prerequisite: Satisfactory completion of four levels of a studio area or its equivalent.
- 32.476 Independent Study in Studio Arts II (1-3) - Extension of 32.475 Independent Study in Studio Arts I.
- 32.480 Internship in Art (3-6) - Provides upper-level art majors with an opportunity to acquire meaningful experiences in practical work situations outside the regular courses prescribed by art curriculum (e.g., museum curator, designers, merchandising operations, artists).
- 32.490 Art Gallery (3) - Provides involvement with the collection, preservation and exhibition of art work. Experience concludes with planning and hanging an exhibition in Haas Gallery of Art. Visits to museums and art galleries familiarize students with the varied nature and philosophy of exhibition today.
- 35.103 Fundamental Musicianship (Spring) (3) - Explores personal music understanding and development through elementary terminology, symbols, theory, music reading, singing, playing and chording of simple instruments and bodily movement to music. Suggested for students with little musical background as preparation for applied study and courses 35.201, 35.210 and 35.320. Recommended first-course in applied music.
- 35.106/ 35.306 Maroon and Gold Band (0-1) - Performs music of varied styles and periods. Marching band each fall, concert band each spring. Requires 5 hours per week each fall and 4 hours per week each spring.
- 35.107/ 35.307 University-Community Orchestra (0-1) - Performs music appropriate to the symphony orchestra. Requires 3 hours per week. Rehearses Monday evenings. Election for wind and percussion players requires permission of the instructor.
- 35.108/ 35.308 Concert Choir (0-1) - Performs choral music of varied styles and periods. Membership by audition only. Requires 4 hours per week.
- 35.109/ 35.309 Women's Choral Ensemble (0-1) - Performs varied styles from popular to masterworks. Requires 3 hours per week. No audition required.
- 35.110/ 35.310 Husky Singers (0-1) - Performs varied music for men's chorus. Requires 2 hours per week. No audition required.
- 35.111/ 35.311 Chamber Singers (0-1) - Performs music of many styles and periods, Renaissance to present. Open to singers from other university vocal ensembles. Requires 3 hours per week. Membership by audition only.
- 35.112/ 35.312 Jazz Ensemble (0-1) - Performs jazz, swing and other forms representing the big band style. Requires 3 hours per week. Election requires permission of the instructor. Audition may be necessary.
- 35.201 Sight Singing (Fall) (2) - Development of the musical ear through progressive training. Elected by music majors or as a single course by non-music majors. Requires 2 hours. Prerequisites: 35.103, 35.210 or consent of the instructor.
- 35.203 Class Voice (Fall) (2) - Provides group voice instruction for the beginner. Emphasizes fundamental singing techniques and solo performance. Requires 3 hours per week.
- 35.204 Class Piano I (2) - Provides group piano instruction for the beginner. Emphasizes solo playing, sight-reading and creative accompaniment. Requires 3 hours per week. Limited seating.
- 35.205 Class Piano II (Spring) (2) - Develops independence in solo playing and accompanying. Continuation of 35.204 or students with demonstrated abilities. Requires 3 hours per week. Consent of instructor.

MUS (35) Music

Administered by Department of Music.

Courses are offered each semester unless otherwise noted.

- 35.101 Music Listening (3) - Provides an approach to music listening through study of basic vocal and instrumental styles. Analysis of various masterpieces, composers and musical forms. Requires no previous musical experience. Recommended first-course in non-applied music.

- 35.206 Class Strings (2) - Provides learning of fundamental string skills and information related to string instruments. Requires 3 hours per week. Prerequisite: 35.103 or consent of instructor.
- 35.207 Class Brass (Fall/even-numbered years) (2) - Provides group brass instruction for the beginner or the brass player who wishes to double. Emphasizes fundamental technique and elementary performance. Requires two hours per week. Prerequisite: 35.103 or consent of instructor.
- 35.210 Music Theory I (Fall) (3) - Studies harmony, voice leading and written harmonization. Requires 3 hours per week. Prerequisite: 35.103 or consent of instructor.
- 35.211 Music Theory II (Spring) (3) - Continues Music Theory I with the study of seventh chords and common-chord and chromatic modulations. Includes melodic and rhythmic dictation and keyboard realization. Requires 3 hours per week. Prerequisite: 35.210.
- 35.213/ 35.313 Violin (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at one semester hour each election. Consent of instructor.
- 35.214/ 35.314 Viola (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at one semester hour each election. Consent of instructor.
- 35.215/ 35.315 Violoncello (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.216/ 35.316 Double Bass (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.217/ 35.317 Organ (1) - Private instruction for those who have previously studied organ or who have strong piano backgrounds. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.230/ 35.330 Voice (1) - Private instruction for students with demonstrated vocal abilities. One-half hour per week. May be repeated at 1 semester hour each election. Prerequisite: 35.203 except music majors and declared music minors.
- 35.235/ 35.335 Piano (1) - Private instruction for students with previous piano study. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.240/ 35.340 Trumpet (1) - Private instructions for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.241/ 35.341 Horn (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.242/ 35.342 Trombone (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.243/ 35.343 Baritone (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.244/ 35.344 Tuba (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.251/ 35.351 Flute (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.252/ 35.352 Oboe (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.253/ 35.353 Clarinet (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.254/ 35.354 Bassoon (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.255/ 35.355 Saxophone (1) - Private instruction for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.256/ 35.356 Percussion (1) - Private instruction with snare, timpani and mallets for students with demonstrated ability or potential. One-half hour per week. May be repeated at 1 semester hour each election. Consent of instructor.
- 35.270/ 35.470 Violin for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.271/ 35.471 Viola for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.272/ 35.472 Violoncello for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.273/ 35.473 Double Bass for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.

- 35.274/ 35.474 Organ for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.275/ 35.475 Voice for Music Majors (2) - Two weekly half-hour lessons for students electing the applied voice specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.276/ 35.476 Piano for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.277/ 35.477 Trumpet for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.278/ 35.478 Horn for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.279/ 35.479 Trombone for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.280/ 35.480 Baritone for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.281/ 35.481 Tuba for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.282/ 35.482 Flute for Music Majors (2) - Two weekly half-hour lessons for students electing applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.283/ 35.483 Oboe for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.284/ 35.484 Clarinet for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.285/ 35.485 Bassoon for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.286/ 35.486 Saxophone for Music Majors (2) - Two weekly half-hour lessons for students electing the applied specialization within the Bachelor of Arts in Music program. May be repeated at 2 semester hours each election for a maximum of 16 semester hours.
- 35.300 Music Theory III (Fall/odd-numbered years) (3) - Continuation of music theory. Includes formal analysis, design original composition, harmonic dictation and perception skills. Requires 3 hours per week. Prerequisite: 35.211.
- 35.301 Music Theory IV (Spring/even-numbered years) (3) - Continuation of music theory. Reviews 20th century compositional practice. Includes analysis and composition. Requires 3 hours per week. Prerequisite: 35.211.
- 35.302 Piano Proficiency (1) - Provides opportunity for majors in music to gain proficiency at the keyboard. May be repeated.
- 35.303 Seminar in Piano Accompanying (2) - Provides instruction, coaching, systematic score study and critical performing experience for pianists. Requires 3 hours per week and includes performing. Offered as needed. Prerequisite: Consent of the instructor.
- 35.304 Special Topics in Music Performance (3) - Provides a unique experience in performance or the study of performance practice. Instructor develops a one-time-only study. Information is available by contacting the Department of Music. Offered as needed.
- 35.305 Special Topics in Music Appreciation (3) - Provides a study of music beyond currently available course topics. Instructor develops a one-time-only study. Information is available by contacting the Department of Music. Offered as needed.
- 35.320 Music in the Elementary School (3) - Provides students with practical skills, theoretical background and musical knowledge that will enable them to teach general music effectively in the elementary classroom. Course designed primarily for elementary education majors. Limited seating.
- 35.321 Music History to 1750 (Fall) (3) - Emphasizes understanding and appreciation of music from antiquity to 1750 through listening and development of a technical vocabulary.
- 35.322 Music History-1750 to Present (Spring) (3) - Provides an overview of music history from the Classical era to the present time. Includes discussion of composers and significant persons, works and development of forms and genres during this time frame.
- 35.324 American Music (Fall/even-numbered years) (3) - Studies works of selected American composers with reference to characteristics indigenous to American music. Prerequisite: 35.101.

- 35.325 Opera and Music Theater (Spring/even-numbered years) (3) - Studies major works of the lyric stage. Emphasizes listening to and reading works of opera, operetta and the popular theater. Prerequisite: 35.101.
- 35.327 Survey of Popular Music (Fall/odd-numbered years) (3) - Analyzes factors and elements of American popular music with emphasis on developments in the 20th century. Includes a chronological study of jazz, balladry, spiritual, country-western, theater, film and rock in comparative listening situations. Prerequisite: 35.101.
- 35.328 Choral Conducting and Methods (Spring/even-numbered years) (3) - Examines the development of techniques and abilities for participating in and supervising choral ensembles. Stresses tone production, proper breathing, choral conducting and reading of appropriate literature. Prerequisite: 35.211.
- 35.329 Instrumental Conducting (2) - Develops skills in baton technique and score reading with emphasis on practical application in instrumental organizations. Laboratory course with three 50-minute sessions per week. Offered as needed. Prerequisites: music major and 35.211.
- 35.350 Seminar in Music Theater (3) - Studies the Broadway musical with special emphasis on works currently in production. Offered in conjunction with music theater productions during spring and summer semesters. Prerequisite: 35.101.
- 35.410 Music Theory V, Counterpoint (Fall/even-numbered years) (2) - Continuation of music theory. Studies melodic writing in two and three voices using 18th century style. Requires 2 hours per week. Prerequisite: 35.211.
- 35.411 Music Theory VI, Orchestration (Spring/odd-numbered years) (2) - Continuation of music theory. Examines instrumental transposition, idioms, score writing and analysis. Requires 3 hours per week. Prerequisite: 35.211.
- 35.430 Seminar in Music History I (2) - Emphasizes development of skill in independent research in areas of music history for majors in music electing the music history specialization. Offered fall, even-numbered years. Prerequisite: 35.321, 35.322.
- 35.431 Seminar in Music History II (1) - Continuation of 35.430 with emphasis on academic research and musicology for majors in music electing the music history specialization. Offered spring, odd-numbered years. Prerequisite: 35.430.
- 35.497 Internships in Music(3-15) - Provides for extended off-campus field experience to be arranged by the major in music, a faculty adviser and an off-campus agency. Requires consent of music department during pre-scheduling. Offered as needed.
- 35.498 Independent Study in Music (1-3) - Provides for a student project of a creative nature in music history, education or performance. Requires consent of music department during prescheduling. .

ECN (40) Economics

Administered by Department of Economics.

- 40.211 Principles of Economics I (3) - Studies macroeconomics: nature of the economic problem; economic concepts; institutional framework; supply, demand and the price system; national income accounting; determination of output and employment levels; consumption, saving and investment behavior; inflation and unemployment; business cycles; monetary and fiscal institutions and theory; economic growth.
- 40.212 Principles of Economics II (3) - Studies microeconomics: supply, demand, the price system; cost and productions analysis, theory of consumer behavior and the firm; output and price determination, resource allocation and determination of factor incomes under perfect and imperfect markets; current economic problems and international economics. Prerequisite: 40.211.
- 40.246 Business and Economic Mathematics (3) - Presents an introduction to basic mathematical tools most frequently employed in economics and business, e.g., systems of linear equations, inequalities, elements of linear programming, matrix algebra, logarithms, mathematics of finance and differential and integral calculus.
- 40.311 Intermediate Micro-Theory and Managerial Economics (3) - Reviews the theory of consumer behavior and the firm; output and price determination under different market systems; pure competition, pure monopoly, oligopoly and monopolistic competition; production and cost analysis; allocation of resource and distribution of income; comparison of behaviors of competitive, monopolistic and oligopolistic product and resource markets; constrained and nonconstrained optimization techniques and their applications to business decisions and business practices; welfare economics. Prerequisites: 40.211, 40.212, 40.246.
- 40.312 Intermediate Macroeconomic Theory (3) - Stresses the national income analysis; theory of income determination, employment and price levels; monetary and fiscal institutions; theory and policy; investment, interest and demand for money; business cycles; inflation and unemployment; national debt; macroeconomic equilibrium; prices, wages and aggregate supply, economic growth, foreign trade and balance of payments; economic policy. Prerequisites: 40.211, 40.212, 40.246.

- 40.313 Labor Economics (3)** - Presents the economics of the labor market, the supply of and demand for labor, the nature of theory and wages, productivity and inflation, unionism, theories of the labor movement, collective bargaining and public policy. A major focus is the relationship between labor markets and gender and racial issues. For each of the economic issues, the implications with respect to gender and race will be examined. The economic analysis and empirical data presented in the course will emphasize differences by race and gender. Prerequisite: 40.212.
- 40.315 Business and Government (3)** - Surveys government policies for maintaining competition, for substitution regulation in place of competition and for substituting public for private enterprise; tests of various government policies in light of economic theory and historical experience. Prerequisite: 40.212.
- 40.316 Urban Economics (3)** - Applies economic theory and recent empirical findings to urban resource use. Analyzes problems of unemployment, housing, education, transportation, pollution and equal opportunity. Prerequisite: 40.212.
- 40.317 Population and Resource Problems (3)** - Reviews classical theories of population growth; recent economic models of population correlating natural resources; capital accumulation and technological change; and population problems in North America, European and developing countries. Analyzes recent trends in birth and death rates as factors in population growth. Studies measures of population and labor force, their distribution by age, sex, occupation, regions; techniques for projecting population levels. Course is not offered on a regular basis. Prerequisite: 40.212.
- 40.346 Business and Economics Statistics I (3)** - Organizing and presenting data, descriptive statistics, elements of probability and probability distributions, sampling and sampling distributions, estimation and hypothesis testing, analysis of variance and Chi-square, introduction to regression and correlation as applied to business and economic problems. Prerequisite: 40.212.
- 40.400 Introduction to Econometrics (3)** - Applies modern statistical methods to economic problems; time series and cross-sectional analysis of measurements of demand and costs; macroeconomics models; income distribution and growth model. Prerequisites: 40.212, 40.346.
- 40.410 Public Finance (3)** - Analyzes revenues and expenditures of local, state and national government in light of micro and macrotheory; criteria and models of government services; subsidies, etc., the principles of taxation, public borrowing and public debt management; impact of fiscal and budgetary policy on resource and income allocation, internal price and employment stability; the rate of growth and world economy. Prerequisite: 40.212.
- 40.413 Money and Banking (3)** - Reviews the historical background and the development of monetary practices and principles of banking; special attention given to commercial banking and credit regulations and current monetary and banking development. Prerequisite: 40.212.
- 40.415 Environmental Economics (3)** - A study of the economics of environmental quality. Examines environmental facts and social circumstances with particular emphasis on market and non-market solutions to the environmental problems. Topics include the private market and its efficiency, externalities, environmental quality as a public good, income distribution effects of government environmental quality as a public good, income distribution effects of government environmental programs; water resources and water quality, problem of air quality and quality of life and other environmental problems; prohibitions on and regulation of polluting activities, taxes, subsidies and effluent charges; population, economic growth and environmental quality. Prerequisite: 40.212.
- 40.422 Contrasting Economics (3)** - Outlines theories of capitalism and socialism with a special emphasis on Marxian theory. Compares theoretical and actual performance of capitalism, socialism and communism. Prerequisite: 40.212.
- 40.423 History of Economic Thought (3)** - Surveys economic theories propounded in the past and their effect on present-day thinking about economic, business and political systems. The surplus value theory; economic planning as part of government responsibility; relation of family budgets to Engel's Law; government responsibility for employment and rent control. Prerequisite: 40.212.
- 40.424 Economic History of the Western World (3)** - Presents a comparative analysis of the economic theory of the United States and Europe with particular attention to the interplay of changes in business, financial and labor institutions, products and production, adaptations to resource differences and conflicting economic doctrines. Prerequisite: 40.212.
- 40.433 International Economics (3)** - Addresses the pure theory of international trade. Outlines the gains from trade; free trade and protection; balance of payments; foreign exchange and capital movements; the dollar and the international monetary system and international liquidity shortage. Prerequisite: 40.212.

- 40.434 Economic Growth of Underdeveloped Areas (3) - Presents studies of stagnating economies; theories of underdevelopment; operative resistances to economic growth; the role of capital, labor, population growth and technological advance; development planning and trade in development settings. Prerequisite: 40.212.
- 40.446 Business and Economic Statistics II (3) - Probability distributions; regression and correlation analysis; analysis of variance and designs of experiments; time series analysis and index numbers, non-parametric methods; modern decision theory and Bayesian statistics; computer application. Prerequisites: 40.212, 40.346.
- 40.460 Advanced Political Economy (3) - Applies economic and political models of social decision making to historical problems from local through international levels. Presents an evaluation of market; political and mixed techniques in particular areas from the 18th through the 20th centuries. Prerequisite: 40.212.
- 40.470 Senior Seminar (3) - Discusses the current literature on economic theory and economic policy. Students read one journal article a week on which they write a report and make a seminar presentation. Prerequisite: Senior standing or consent of the instructor.
- 40.490 Independent Study in Economics (1-3) - Provides students with an opportunity to receive individualized instruction as they pursue in-depth inquiries into previously specified subject matter of special interest within the field of economics. Topic and outline must be developed with a faculty sponsor and approved by the department during the preceding semester of residence.

GEO (41) Geography

Administered by Department of Geography and Earth Science.

- 41.101 World Physical Geography (3) - Studies Earth-sun relationships, land masses, oceans, landforms, weather and climate and natural resources as elements and controls related to the adjustments humans make to their environment.
- 41.102 World Cultural Geography (3) - Demonstrates the relationship of humankind, land, culture and economic activities.
- 41.105 Environmental Issues and Choices (3) - Examines contemporary environmental resource issues within a values, ethics and decision-making framework.
- 41.125 Weather and Climate (3) - Studies the interrelationships between the elements of weather and climate; elaborates on the functional application of these elements through a study of climatic realms.
- 41.200 Geography of United States and Canada (3) - Presents a spatial analysis of the United States and Canada emphasizing such concepts as environmental perception and sequent occupancy; considers salient problems within geographic regions in terms of genesis and potential for solution.
- 41.201 Geography of Europe (3) - Studies Europe's physical characteristics, topography, transportation systems, resources, populations and trade.
- 41.202 Geography of Latin America (3) - Examines Latin America as a major geographic region in terms of those economic, racial and cultural forms that have provided regional unity and diversity.
- 41.203 Geography of Australia (3) - A regional and spatial analysis of Australia within a physical, cultural, economic and environmental context. Examines Australia's historic and contemporary role within the Asian-Pacific sphere.
- 41.221 Economic Geography (3) - Reviews major economic activities; focuses on significant characteristics, location theory and spatial patterns.
- 41.242 Map Skills (3) - Uses a variety of published maps for interpreting and interrelating past and present physical and cultural phenomena with a view toward the future.
- 41.250 Elements of Planning (3) - Acquaints students with the philosophy of planning, the roles of the planner and planning objectives.
- 41.258 Environmental Conservation (3) - Identifies resource management and environmental problems and offers possible alternative solutions for these problems.
- 41.264 Applied Cartography (4) - Studies fundamental principles, use of graphic media, methods of construction, use and interpretation of maps, models, charts and diagrams, utilized in geography and in urban and regional planning.
- 41.281-289 Special Topics in Geography (3) - Presents areas of geographic interest to a general audience.
- 41.301 Water Resources Management (3) - An examination of contemporary water resource issues related to environmental planning and management.
- 41.302 Land Resources Management (3) - An examination of selected land-related issues and problems with the objective of identifying appropriate management techniques.
- 41.303 Soil Resources Management (4) - Provides a thorough background to the geoenvironmental aspects of soil such as its nature and properties, factors of soil formation, classification and geographical distribution. Examines the interpretation of soil surveys and their role in land use and resource planning, conservation and management and environmental quality.
- 41.304 Environmental Valuation (3) - Provides a conceptual and methodological framework for evaluating environmental resources. Emphasis is on quantitative valuation techniques that help separate facts from emotion in complex environmental problems. Prerequisite: 41.105 or permission of the instructor.
- 41.310 Population Geography (3) - Analyzes physical, human and economic factors that influence the changing pattern of the political map of the world.

- 41.315 Outdoor Recreation Resources Management (3) - Explores the array of contemporary issues involving land, leisure and recreational planning.
- 41.342 Geographic Information Systems (3) - Presents an introduction to computer-assisted analysis of geographic data. Emphasizes GIS applications in management of natural resources, environmental assessment and urban and regional planning. Laboratory projects provide opportunities to develop computer expertise. Prerequisite: 41.242 or 41.264 or consent of the instructor.
- 41.350 Advanced Planning (3) - Presents the development of skills and techniques used in analysis, plan preparation, goal setting and implementation of urban and regional planning processes and activities. Prerequisite: 41.250 or consent of instructor.
- 41.363 Urban Geography (3) - Provides a conceptual and methodological framework in which to view the process of urbanization.
- 41.462 Techniques of Geographic Measurement (3) - Data handling and map symbolization emphasized in this spatial analysis course. Topics in descriptive and inferential statistics are explored with an emphasis on applications to problems with spatial dimensions. Prerequisite: 41.242 or consent of the instructor.
- 41.475 Independent Study in Geography (1-3) - Provides independent, investigative research oriented to studies of specific geographical problems. Prerequisite: Open to juniors and seniors majoring in geography.
- 41.496 Internship in Geography (3-12) - Provides for on-site work experience in an appropriate agency or business. Internship is intended to integrate classroom learning with practical work experience emphasizing the functions, projects and responsibilities available at the internship site. Prerequisites: Major in Geography, Option I, appropriate completion of course requirements in the option and consent of the instructor.
- 41.497 Internship in Planning (12) - Involves the placement of a student who is enrolled in the course of study in urban/regional planning or environmental planning into a planning office for one semester, during which time the student is actively involved in the functions and activities of that planning office.
- 41.498 Applied Planning Seminar (3) - Provides an opportunity for reporting and analyzing experiences in internship. Integrates and utilizes practice in the development of land use from an urban or environmental perspective. Taken in coordination with the internship in urban/regional planning (41.497) or geography (41.496).

HIS (42) History

Administered by Department of History.

Prerequisites are subject to modification by the instructor.

- 42.100 Transatlantic World in the 20th Century (3) - Represents an analysis comparing and contrasting the experiences of Americans and Western Europeans in the 20th century. Focuses on the decay of Western traditions, the dilemma of the individual in an increasingly complex society and the rise of "technocratic" civilization. Provides insight into roots of current events, promotes sense of historic awareness beyond the national level and enhances appreciation of basic similarities and differences among Americans and Western Europeans.
- 42.112 Origins of the Modern World (3) - Describes the political, economic, social, intellectual and military developments that shaped the story of mankind from the early Renaissance to the early 19th century.
- 42.113 The Modern World (3) - Reviews the political, economic, social, intellectual and technological elements of 19th and 20th century history, showing the progress of the Western tradition and the growing importance of the non-Western world.
- 42.121 United States History Survey: Colonial Period to 1877 (3) - Presents a chronological history to 1877 with emphasis on foreign affairs and the evolution of politics, economics, society and culture.
- 42.122 United States History Survey: 1877 to the Present (3) - Presents political, social, cultural, intellectual, economic and foreign affairs developments of the United States from Reconstruction to the present.
- 42.133 The Ancient and Medieval Worlds (3) - Surveys from the Ancient Near East to the fall of the Roman Empire in the West, emphasizing Greece, Rome and the rise of Christianity; a study of the people and countries of the West that emerged after the fall of the Roman Empire, with emphasis on feudalism, manorialism and the medieval church.
- 42.141 The Modern Far East (3) - Focuses on modern China and Japan and closely studies the value system of these peoples as reflected in their politics, arts and communications in the 19th and 20th centuries. Particular attention paid to the interaction between the old models provided by Confucianism and Buddhism with the models provided by the West during modernization. Not offered every semester. Approved for diversity requirement.
- 42.142 Latin America: From European Colonization to the Present (3) - A concise introductory survey of Latin American history from 1492 to the present, stressing the significant economic and social factors in its evolution. Not offered every semester. Approved for diversity requirement.
- 42.143 Black Africa (3) - Presents a survey of the transformation of the societies of Sub-Saharan Africa from colonialism to national independence. Approved for diversity requirement.

- 42.144 Islamic and Hindu Worlds: Middle East, India and Malaysia (3) - Introductory course surveying the religious, cultural, economic and political history of the Middle East, North Africa, the Indian subcontinent, the Malay Archipelago and their bearing on contemporary Third World problems. Not offered every semester.
- 42.208 Contemporary Issues in U.S. History (3) - Examines selected issues of social, political or foreign affairs within a historical context, describing the origin, evolution, current significance and importance in American society. The issues may vary each semester.
- 42.210 Values In Conflict in 20th Century History (3) - Presents select American conflicts in the 1960s involving values of the individual and the civilization; resolutions achieved are reviewed and evaluated. The selection of conflicts varies each semester. Approved for diversity requirement.
- 42.215 Global Issues in History: A Conflict of Values (3) - Introduces the historical and global nature of many of today's critical issues that have far reaching consequences. Population explosion, famine in the underdeveloped world, energy crisis, terrorism and the spread of nuclear weapons are illustrative of some of the issues that will be examined. Attention will be given to defining values as related to these issues.
- 42.222 Business History of the United States (3) - Focuses on the evolution of business from 1600 to the present, entrepreneurial leadership of major businessmen and the history of major modern industries.
- 42.223 Economic History of the United States (3) - Focuses on the changing nature of the American economy. This course covers three time periods: the commercial-agricultural age, the industrial age and the modern managerial age. Examines agriculture, banking, business administration, commerce, labor, manufacturing, mining and transportation, social and political factors that contributed to changing economic relationships in the United States.
- 42.224 The Immigrant Experience (3) - Provides an overview of cultural diversity in American society by focusing on the history of immigration from the colonial period to the present. Students examine ethnicity in America through the study of political, economic, religious and social issues; industrialization and urbanization; attitudes of nativism, discrimination and racism; and powerful influences of immigrant kinship networks, ethnic community associations, cultural traditions, religious institutions and ethnic group identity. Lectures include new historical interpretations of cross-cultural relationships and new assimilation theories. Not offered every semester. Approved for diversity requirement.
- 42.226 Popular Culture in America (3) - Review of major forms of popular culture in America from colonial beginnings to the present, telescoped to permit fullest presentation of the period since 1920. Course blends continuity of values and ideas in American culture with dynamics of change to which the culture constantly adjusts. Not offered every semester.
- 42.228 African-American History (3) - Examines the nature and meaning of the African-American experience in the United States surveyed from its beginnings to the present. Reviews black creative expressions in the visual arts, music, literature, philosophic thought and social history. Approved for diversity requirement.
- 42.229 Modern World Leaders (3) - Studies significant world leaders in religion, politics, war and culture and their impact on world history. Focuses on different leaders each time offered and covers a selected period from the Renaissance to the present. Analyzes the conditions which helped produce these leaders and ends by discussing reasons for their success or failure. Includes only leaders who have made a significant contribution outside their national boundaries.
- 42.250 History of Science(3) - Studies historical development of the sciences and the nature of scientific thought and method; provides understanding of the characteristics of the sciences as well as their significance to human progress from antiquity to the present. Not offered every semester.
- 42.260 Sport and Society in America (3) - Presents a cultural approach to organized sport in the United States; proceeds from the premise that sport mirrors the values, states of technology and the conditions of society. Emphasizes the rise of the institution of sport and its impact on business, commercialism, leisure, affluence, urbanism, nationalism and the problems of governance and law. Not offered every semester.
- 42.281 Military History I (3) - Studies organized warfare from its origins to the last campaign of Napoleon I, concentrating on strategy and tactics. Examines moral and social problems raised by warfare. Not offered every semester.
- 42.282 Military History II (3) - Studies organized warfare and the theory of war from the Napoleonic age to the present, concentrating on strategy and tactics. Examines the socio-political background, especially of the two world wars and the age of guerrilla warfare. Not offered every semester.
- 42.315 Origins of Civilization: The Ancient Near East (3) - Surveys known origins of civilization in the Neolithic, Bronze and Iron ages in Mesopotamia, Egypt, Anatolia and Syria-Palestine, with some attention to India and China. Not offered every semester. Prerequisite: 42.133 or consent of the instructor.

- 42.316 The Classical World: Ancient Greece and Rome (3) - Covers ancient Greek and Roman history and culture. Greece: emphasis on Aegean civilizations, the age of Pericles and the Hellenistic age after Alexander the Great. Rome: emphasis on early monarchy and republic, imperial expansion, the Pax Romana and the decline and fall of the empire; concluding with the Barbarian age and the rise of Byzantium. Not offered every semester. Prerequisite: 42.133 or consent of the instructor.
- 42.318 Early England: The Making of an Island State (3) - Reviews political, economic, social and cultural life in England to the Glorious Revolution. Not offered every semester.
- 42.319 Modern England: The First Industrial Empire (3) - Examines political, social, economic and cultural development in England from the Glorious Revolution to the present with emphasis on the development of democracy, the Industrial Revolution and the growth and decline of the British Empire. Not offered every semester.
- 42.320 French Revolution and Napoleon (3) - Analyzes 1789-1815 era in France and assesses its significance for the history of France and the world. Not offered every semester. Prerequisite: 42.112 or consent of the instructor.
- 42.324 Revolutionary Europe and the Rise of Modern Traditions, 1600-1789 (3) - Discusses the rise of the modern state; the political, intellectual, social, economic and cultural aspects of the eras of the Scientific Revolution and Enlightenment; the establishment of European world hegemony and a world economy; the diplomatic and military interaction of the European states. Not offered every semester.
- 42.326 Europe 1789-1914 (3) - Analysis of Europe's "long nineteenth century." with particular emphasis on the nexus of political and social history. Not offered every semester.. Prerequisite: 42.113 or consent of the instructor.
- 42.327 Europe in the Age of Total War, 1914-1945 (3) - Examines origins of World War I and alliance systems that fought it, diplomacy, military strategy, tactics of the war and the peace treaties of 1918-1920, plus the rise of Mussolini, Stalin, Hitler and the lesser dictators along with the international crises that finally culminated in the outbreak of World War II. Course stresses ideological and global patterns developments. Not offered every semester.
- 42.328 Cold War Europe, 1945-Present (3) - Surveys European powers in the late 1930s with emphasis on the forces leading to war; military and diplomatic developments of World War II and the causes of the East-West rift; the reconstruction of democratic Europe and formation of the Soviet bloc; European integration and political trends in both power systems. Not offered every semester.
- 42.329 The American Woman (3) - Studies the history of women in America from colonial times to the present; topics include women's work, family life, politics, sexuality, education, feminism and reactions against it and the many facets of women's public and private roles in the nation's history. Approved for diversity requirement.
- 42.335 History of Christianity (3) - Promotes student analysis of the ancient, medieval and modern roots of contemporary Christian denominations and movements. Primary and secondary historical sources are discussed seminar-style in order to critically examine important ideas, personalities and historical conditions of Christianity. Prerequisite: Any course in history or consent of the instructor.
- 42.336 Medieval Europe (3) - An analysis of European history from 300 to 1400, focusing on political, social, religious and intellectual trends during the period. Feudalism, church history and commercial relations receive particular emphasis. Examines the status of women in medieval society. Prerequisite: 42.112.
- 42.337 Europe in the Renaissance and Reformation (3) - A detailed analysis of European history from 1300 to 1650, focusing upon the intellectual and artistic movement known as the Renaissance and the religious upheaval associated with the terms "Reformation" and "Counter-reformation." Political, social, intellectual and religious trends are highlighted. Prerequisite: 42.112.
- 42.346 Modern European Intellectual History (3) - Relates changes in currents of thought during the period to political, economic and social developments. Special attention given to interpretations of major intellectual movements. Not offered every semester.
- 42.347 History of the Holocaust (3) - Focuses upon the major theme-the genesis and implementation of the planned destruction of European Jewry from 1933 to 1945; briefly traces the history of anti-Semitism and evaluates scope of prejudice, discrimination and genocide in contemporary civilization. Includes an analysis of literature of the Holocaust and evaluation of the Holocaust's impact on modern-day Israel and world Jewish community. Not offered every semester.
- 42.356 Russia to 1917 (3) - Analysis of Russian political and social history from the ninth century to 1917, with emphasis on the 18th and 19th centuries. Not offered every semester.
- 42.372 Colonial America and the War of Independence (3) - Reviews European colonization in North America with major attention to the establishment and development of England's colonies, an emerging American society and problems which created conflict between the Americans and the British resulting in the American War of Independence. Not offered every semester.

- 42.374 U.S. Social History (3) - Focuses on everyday life in the past and how ordinary people made history and were affected by historical change. Emphasis on family life, as a way of exploring issues of race, gender and ethnicity. Prerequisites: 42.121 and/or 42.122.
- 42.379 The New Nation: United States, 1781-1845 (3) - Reviews the impact of the democratic experiment on government, the economy, culture and society. Among subjects studied are political parties, railroads, popular music and anti-slavery. Not offered every semester.
- 42.381 Civil War, Reconstruction and Industrialization: United States, 1845-1896 (3) - Surveys the causes of the Civil War, the war itself, reconstruction and industrialization. Topics include politics, ideology, military technology and tactics, race and gender issues, the economy, labor, immigration and popular culture. Prerequisite: 42.121.
- 42.383 Shaping of Contemporary America, 1896-1941 (3) - Examines during these years major changes: imperialistic adventures, reluctant but expectant involvement in World War I, the "flaming '20s," and the nation's greatest depression. Out of these emerges the modern mass-centered welfare state. Not offered every semester.
- 42.385 Recent American History: 1941 to the Present (3) - Examines the major political, economic, social-cultural and intellectual developments in the United States from 1941 to the present. Cold War, Korea and Vietnam, turmoil of the 1960s, nuclear concerns and the role of the individual in an increasingly complex, technological society are some of the major themes examined. Not offered every semester.
- 42.388 Pennsylvania (3) - Examines major contributions of Pennsylvania to national life, relations between state and national movement. Not offered every semester.
- 42.391 Diplomatic History of the United States to 1898 (3) - Presents a critical analysis of United States foreign relations from the Colonial Period to the 1898 war with Spain. Not offered every semester.
- 42.392 Diplomatic History of the United States Since 1898 (3) - Presents a critical analysis of United States foreign relations from the war with Spain in 1898 to present. Not offered every semester.
- 42.395 African-American Radicalism in the 20th Century (3) - Examines the major black radicals and their philosophies and movements in 20th Century America. Special emphasis will be placed on the following figures: W.E.B. DuBois, Marcus Garvey, Malcolm X, Stokely Carmichael (Kwame Toure), Angela Davis, Amiri Baraka, the Black Panther Party and Louis Farahkhan of the Nation of Islam. Approved for diversity requirement.
- 42.397 Independent Study in History (1-4) - The topic selected must be approved by a committee appointed by the chairperson. Independent reading and/or research related to some aspect of history is supervised by an appropriate member of the department. A student may register for this course no more than twice and credits may not exceed 4 semester hours. See the section on Independent Study. Prerequisite: 60 semester hours.
- 42.398 Research and Writing Skills (3) - Focuses on the development of proficient research and writing skills. Students learn to fully utilize library and research facilities; develop skills in analyzing and interpreting original/primary research documents; and produce a clear, concise and well-written lengthy formal paper. In addition, students develop an understanding of how and why history is written and revised.
- 42.404 Topics in American History (3) - Seminar allows students to focus on a specific topic or related topics in American history for in-depth study and analysis. Includes historiography of the chosen topic, discussion of problems associated with the topic and production of a research paper. Topics vary from semester to semester.
- 42.452 Soviet Russia (3) - Presents a critical analysis of the political, social, economic and cultural evolution of the Soviet Union and a study of Soviet foreign policy. Not offered every semester. Prerequisite: 42.113.
- 42.453 Problems of Contemporary Latin America (3) - Analyzes recent events or movements that may indicate recurrence of historical problems or major developments of international significance in selected countries of Latin America. Not offered every semester.
- 42.460, 42.461 Topics in European History (3) - Investigates select topics in European history. Seminar-style course studies variety of problems in European history, in the medieval, early modern and modern periods. Discusses and analyzes secondary materials on the history, philosophy, politics, science and art of a chosen period. Research paper required. Topics vary from semester to semester. Prerequisite: 42.112 or 42.133.
- 42.469 Women and Gender in European Intellectual History I (3) - Investigates the condition of women, of female views concerning that condition and the view of males concerning women, over the course of western history. Women and Gender I covers the ancient, medieval and early-modern periods (c.650 BC - 1650 AD). Prerequisite: two 100-level courses in history or consent of the instructor. Approved for diversity requirement.

- 42.470 Women and Gender in European Intellectual History II (3) - Investigates the condition of women, of female views concerning that condition and the view of males concerning women, over the course of western history. Women and Gender II covers the Scientific Revolution to the present (c.1550-1995). Prerequisite: two 100-level courses in history or consent of the instructor. Approved for diversity requirement.
- 42.472 History of Labor in the United States (3) - Surveys the emergence and development of organized labor from the post-Civil War period to the present. A third of the course is devoted to an analysis of contemporary labor-management problems and labor's changing role in our increasingly technological society. Prerequisite: 3 semester hours in history.
- 42.497 Internship in History (3-12) - Provides a work-study experience jointly administered by an academic faculty member and a sponsoring employer, with about 40 hours of supervised work generating each semester hour. Prerequisite: For history majors, 15 semester hours of history, including 42.398. Other majors may enroll with consent of advisers. Note: A student may not apply more than 3 semester hours of internship toward the fulfillment of the history major, although a student may enroll for more than 3 semester hours of 42.497.

PLS (44) Political Science

Administered by Department of Political Science.

- 44.101 Elements of Political Science (3) - Uses the procedures of political science to study power and examines the processes of politics and the practices of governments, the performance of and the pressures on the political system. For non-majors.
- 44.108 Contemporary Political Ideologies (3) - An introduction to those political beliefs that shape contemporary politics: nationalism, liberalism, conservatism, socialism, feminism, religious fundamentalism, populism.
- 44.120 United States Government (3) - Introduces government and politics in the United States, emphasizing constitutional development, political development, civil rights, parties, elections, pressure groups, the Congress, the president, courts and contemporary problems, such as foreign affairs, defense, unemployment and poverty.
- 44.160 Nations, States and Governments (3) - Presents a comparative study of the governance of countries or nation-states in selected developed and less developed regions of the world.
- 44.181 Contemporary Issues in World Politics (3) - An introduction to international politics through an examination of such critical problems as war and peace, nation-building, revolution, ethnic conflict and democratization.
- 44.207 Ethics, Politics and Public Policy (3) - Examination of normative, descriptive and metaethical approaches employed by politicians and policymakers in confronting issues of responsibility and choice in public programs and policies. Focuses on ethical problems and responses in civic life and emphasizes the ways alternatives impact on society.
- 44.210 Introduction to Political Theory (3) - An introduction to fundamental political concepts such as liberty, justice, equality, power and authority, as well as the main ideas of some representative political philosophers from Socrates to the present.
- 44.222 Women and Politics (3) - Emphasizes political systems and the broad range of issues that find women as the recipients of and makers of public action and policy. Examines issues that unify and divide women as they attempt to understand the problems of becoming equal in an unequal society. The role of women in the United States and in other nations is explored. Approved as a diversity course.
- 44.244 Introduction to Criminal Justice (3) - Provides students with a comprehensive survey and basic understanding of the role and function of the criminal justice field. Focuses on crime and criminal law, the police, law enforcement, courts, corrections and juvenile justice.
- 44.280 Introduction to International Relations (3) - Examines sources of international conflict and cooperation, power politics in the international arena, problems of collective security, the settlement of disputes, diplomacy and international law.
- 44.303 Politics and the Arts (3) - Surveys painting, music, films, poetry and novels to show the relationship between these media and political concepts, philosophies and problems.
- 44.322 Political Violence (3) - Surveys individual, group and mass political violence, concentrating on causes and manifestations. Studies positive and negative effectiveness of political violence with the object of placing the phenomena in meaningful historical and contemporary contexts.
- 44.326 Parties, Groups and Public Opinion (3) - Examines the development of political parties in the United States; elections, voter behavior and political participation; and the role of interest groups and political propaganda.
- 44.336 Public Administration Theory (3) - Introductory course to the study of the "management of government business." Examines the multi-dimensional nature of Public Administration by exploring the political, social and economic factors influencing the public sector administration in the United States. Areas of emphasis include principles of public administration organization theory, personnel management, public budgeting, public policy formulation and implementation and collective bargaining in the public sector.

- 44.363 Soviet and Post Soviet Politics (3) - Studies the history, ideology, institutions and policies of the Soviet and post-Soviet political systems.
- 44.366 Political Systems of Western Europe (3) - Examines democracy as practiced in Western Europe; the politics and governments of Great Britain, France and Germany.
- 44.371 Political Systems - Africa (3) - Examines problems of newly independent states, the struggle for independence, attempts to create national unity and create political stability, economic and political development, the role of the military in politics and politics in the Republic of South Africa.
- 44.375 Multiculturalist Theory (3) - Treats the issues of concern generated from an attention to and appreciation of, our diverse cultural identities. As a theory course, it approaches multiculturalism as a new attempt to respond to the challenges that difference poses in democratic theory. .
- 44.376 Government and Politics of the Middle East (3) - Introduces the political history and governments of particular states in the region and considers their interactions regionally and internationally. Considers in particular the importance of Islam in politics, the Arab-Israeli conflict, the Iranian revolution, the Iraqi wars.
- 44.377 Feminist Political Theory (3) - Explores various strands of feminist political thought and approaches to philosophical critique. The primary aim of the course is to familiarize students with the contributions made by feminists to the field of political theory and to provide students with the basic tools with which to read, understand, critique and write in acknowledgement of these contributions.
- 44.405 Development of Political Thought (3) - A chronological survey from the ancient Greeks to the present. Examines the ideas of seminal political thinkers as they grapple with perennial problems.
- 44.409 American Political Thought (3) - Analyzes the relationship of American political thought to modern political theory. Traditional models are used in a historical, chronological way but are reworked to show their relation and relevance to contemporary actions and issues. Covers the main ideas of the leading political thinkers in America from the colonial period to the present.
- 44.412 Scope, Approaches and Methods of Political Science (3) - Analyzes the various approaches and methods currently in use in political science research.
- 44.437 Public Administration Applications (3) - Examines major theories of public management and their application in the workplace to enhance productivity. Uses readings, cases and simulations.
- 44.438 Public Personnel Administration (3) - Examines public service as a career, the personnel needs of national, state and local governments; civil service law, personnel systems; collective bargaining in the public sector and current problems in the public service.
- 44.440 The President and Congress (3) - Reviews presidential and congressional politics, public policy-making roles, executive-legislative relationships, constitutional issues. Explores the constitutional limitations, citizen expectations and myths surrounding these institutions.
- 44.446 Constitutional Law I (3) - Analyzes the evolution, structure and function of the Supreme Court, concentrating on a case study approach of the court's interpretations of the powers of the president, Congress and federal-state relationships. Offered fall semester only.
- 44.447 Constitutional Law II (3) - Studies the decisions of the Supreme Court as they are related to the individual and the government, concentrating on nationalization of the Bill of Rights, rights of persons accused of crimes, equal protection and voting rights. Offered spring semester only.
- 44.448 Judicial Process (3) - Studies policy-making by the federal courts, primarily the Supreme Court. Analyzes nature of the policy-making function as well as the impact of policy-making on American society.
- 44.452 State and Local Government and Politics (3) - Presents a description and analysis of state and local legislatures, executives and judiciaries; the myths and realities of state and local politics; intergovernmental relations; current policies and problems. Offered spring semester only.
- 44.456 Public Policy (3) - Studies the institutional and political context of policy formation and implementation; the process for designing and administering government programs; and the techniques of analysis and evaluation that are or could be employed in formulating policy objectives, choosing from among alternatives and assessing performance. The approach is pragmatic, applied and interdisciplinary.
- 44.458 U.S. Foreign Policy (3) - Analyzes the substance, methods and purposes of U.S. foreign policy, including the determinants of policy, policymaking machinery and implementation matters.
- 44.464 Government and Politics of Ireland (3) - Surveys historic, social, cultural and religious developments in Ireland with concentration on a study of the government and politics of Northern Ireland and the Irish Republic. Examines contemporary literature, drama, music and art.
- 44.487 International Law and Organizations (3) - Examines the nature of international law and politics and surveys basic issues in contemporary international law. The course also examines the development of international organizations and selected issues.
- 44.490 Independent Study in Political Science (3) - Provides for individualized reading, research and reporting under conditions of minimal supervision. Projects must have departmental approval and be under way by the end of the first week of a session.

- 44.492 Seminar in Government and Politics (3) - Examines problems in government and politics in an attempt to review and unify theories and methods of political science. Emphasizes individual research projects.
- 44.497 Internship in Political Science (1-15) - Provides for on-site work experience and training designed to give an opportunity to apply the theoretical and descriptive knowledge acquired in the classroom. The student is supervised by an instructor and an on-site person. A paper is required.

SOC (45)Sociology

Administered by Department of Sociology, Social Welfare and Criminal Justice.

- 45.133 Introduction to Social Work and Social Welfare (3) - An orientation to the profession of social work and field of social welfare. Includes an examination of historical and current social work processes, values and practices in various settings and with special population groups.
- 45.211 Principles of Sociology (3) - Introduces the basic concepts, theories and perspectives in sociology. Sociology is the scientific study of the influence of groups, institutions and cultures upon individuals. For example, the extent to which race, gender, class, religion and education affect the behavior and opportunities of individuals is probed.
- 45.213 Contemporary Social Problems (3) - Examines social issues such as plant closings and unemployment, the impact of multinational corporations on the economy and the environment, mobility, aging, family problems - sex roles, abuse, incest, divorce, alcohol and drug abuse, social change and disorganization, racism, sexism, employment discrimination, crime, alienation and poverty.
- 45.215 Racial and Ethnic Minority Groups (3) - Presents a sociological examination of some of the major racial, ethnic and religious minorities and their divergent heritages in the contemporary American scene. Prerequisite: 45.211.
- 45.217 Sociology of Sport (3) - An introduction to and critical examination of the role of sports in society. Focuses on the reciprocal impact of sports and various institutions of society. Students examine the sociological perspective on sports as a human activity.
- 45.231 Marriage and Family (3) - Provides a sociological examination of the traditional and changing institutions of marriage and the family in contemporary society. Focuses on family and marital interaction, roles and interpersonal familial relations.
- 45.236 Child Welfare (3) - Examines child welfare services, issues and the institutions which affect the social functioning of children. Course is not in the social welfare degree program.
- 45.242 Juvenile Delinquency (3) - Examines social pressures operative upon children in American society, which leads to formation of delinquent personality. Consideration of treatment and prevention, juvenile courts, clinics and correctional institutions, evaluation of theories, concepts and relevant empirical research.
- 45.244 Introduction to Criminal Justice (3) - Offers a comprehensive survey and basic understanding of the role and function of the criminal justice field. Attention is given to crime and criminal law, law enforcement, police, courts, corrections and juvenile justice.
- 45.255 Research Methods for Social Inquiry (3) - Surveys quantitative research techniques and includes an introduction to the use of computers in social science research. Some qualitative methods are explored. Prerequisite: 45.211.
- 45.260 Basic Social Statistics (3) - Presents principles and techniques of statistical analysis used by sociologists and others in social sciences: descriptive tables and graphs, measures of dispersion, significance tests, correlation and regression. Students collect and analyze data using computers. Emphasis on understanding concepts underlying statistical analysis in order to permit intelligent use and interpretation of statistics. Prerequisites: 45.211 and 45.255.
- 45.297 Introductory Practice Experience in Social Welfare (3-6) - Exploratory practice experience for students considering a social welfare major. Provides an overview of the agency system under the direction of a practice supervisor. Prerequisite: 45.133.
- 45.316 Urban Sociology (3) - Presents a sociological analysis of origin and growth of cities with an emphasis on the dynamic patterns of social interaction in the changing contemporary urban scene. Views cities mainly from a multinational perspective with a special focus on urban regions. Prerequisite: 45.211.
- 45.318 Social Stratification (3) - Examines the role of social class in terms of structure, function and persistence in any society. Examines classical theoretical statements and evaluates current American class relations in terms of status, power, authority and social mobility. Covers notable studies of the American class system and provides a close look at power relations and styles of life among the various American classes. Prerequisite: 45.211.
- 45.319 Religion and Society (3) - Examines religion as a means by which people, as members of communities order their lives and endow them with meaning. Topics include ritual and belief systems, the social organization of religion and the relationship between religion and other parts of the social structure.
- 45.320 Sociology of Women (3) - Explores the development of the traditional roles of women in Western society to the present time including both work and family roles. Included is an analysis of the women's movement as a social movement. The course acquaints students with feminist theory within a sociological perspective. Prerequisite: 45.211 and 45.260 or equivalent.

- 45.334 Social Work Practice with Individuals and Families (Fall) (3)** - Examines several orientations to problem solving with individuals and families. Emphasizes the essential knowledge, values and interviewing skills for beginning social work practice. Prerequisites: 45.133, 45.211, 45.215, 45.297; 48.101, 48.210, 50.101.
- 45.341 Criminology (Fall) (3)** - Discusses the major sociological theories of crime and justice. Presents the scope of crime in the United States and other countries. Probes each major type of crime, namely, homicide, rape, white-collar crime, political crime organized crime, property crimes, drug crimes, prostitution and pornography. Describes and analyzes law enforcement system. Prerequisite: 45.211.
- 45.342 Penology (Spring) (3)** - Penology studies the social rationales, methods and consequences of punishing and rehabilitating law breakers. Includes a social history of prisons, jails and punishment, the interpersonal dynamics within the institution, the inmate social order, causes of riots, treatment programs and alternative models and policies. Prerequisite: 45.211.
- 45.343 Victimology (Spring) (3)** - Examines the short-term and long-term effects of victimization on individuals and groups from such crimes as family violence, rape, street crime, business fraud, corporate negligence and political wrong doings. Prerequisite: 45.211.
- 45.345 Medical Sociology (3)** - Facilitates student's ability to understand, analyze and evaluate sociological factors in relation to illness, medical behavior and health care systems. Prerequisite: 45.211 or consent of instructor.
- 45.376 Science and Society (3)** - Explores science as the organized activities of an occupational community. Examines the development of science as an institution, its social organization in modern society and its internal and external politics. Prerequisite: 45.211 or consent of instructor.
- 45.400 Sociology of Mass Communication (3)** - An in-depth discussion of the cognitive and behavioral affects of mass media, especially television on audiences, the social structure of the communications industry, particularly its influence on media content and the political use of mass media. Students critique latest research articles in the field. Prerequisites: 45.211 and junior status.
- 45.441 Social Indicators (3)** - Reinforces and extends earlier learning in research techniques and methods by focusing on systematic step-by-step understanding, analysis and preparation of social indicators at the federal, state and local levels of social policy planning and analysis. Promotes understanding of social indicators and the use of these indicators within all levels of society.
- 45.443 Sociology of Deviant Behavior (Fall) (3)** - Evaluates the presence and function of deviance in society. Includes mental illness and various types of crime and stigmatized behavior. Examines how it is handled therapeutically and legally through institutionalization and treatment. Attempts to provide a broad theoretical perspective as well as concrete examples of deviance in any society. Examines current methods of rehabilitation and punishment. Prerequisite: junior year standing (or 65 semester hours or more).
- 45.450 Social Work Practice with Small Group (3)** - Utilizes problem-solving interventions in small groups integrating social work knowledge, skills and values. Offered fall semester only. Prerequisites: 45.133, 45.211, 45.215 and 45.297; 48.101, 48.210, 50.101.
- 45.451 Family Counseling (3)** - Surveys the major theoretical models for family assessment and intervention with primary emphasis on ecological systems. Covers knowledge of rudimentary assessment and intervention skills for problem solving with families.
- 45.452 Social Work Practice With Organizations and Communities (Spring) (3)** - Examines problem-solving interventions with large groups, communities and organizations using the conceptual framework of social work knowledge, skills and values. Prerequisites: 45.133, 45.215 and 45.297, 40.211, 44.120.
- 45.453 Social Welfare Policy (3)** - Frameworks for analyzing social and economic policies presented with special focus on legislative, judicial and administrative policies. Prerequisites: 45.133, 45.215 and 45.297 (may be taken concurrently), 40.211, 44.120. Offered spring semester only.
- 45.457 Sociology of Community (3)** - Reviews and examines theories and research of communities. Gives special emphasis to the American community. Prerequisite: 45.211.
- 45.461 Social Problems in Rural-Urban Communities (3)** - Focuses on social problems peculiar to and characteristic of rural and small urban communities. An eclectic theoretical interpretation will be made of the major social problems. Emphasizes problems which result in the dysfunctioning of patterned social relationships.
- 45.462 Sociological Theory (3)** - Examines classical forms of social theory from the 19th century and their impact on the development of theory in the 20th century. Studies the views of Max Weber, Emile Durkheim and Karl Marx on the social structure, social organization, economy and human condition as well as their influence on contemporary perspectives, namely, the conflict and functional approaches, sociology of knowledge, phenomenological sociology and symbolic interactionism. Prerequisite: 45.211.

- 45.465 Computer Applications in the Social Sciences (3)** - An introduction to computer use for the social sciences (through use of SPSS). Emphasizes translating questions into data analysis and interpretation of statistical results. Prerequisites: 45.260 or similar statistics course. Offered spring semester only.
- 45.466 Social Research (3)** - Stresses design and construction of major research methods and procedures used in social research. Special emphasis on survey research. Prerequisites: 45.211, 45.260 or consent of the instructor.
- 45.467 Population Problems (3)** - Studies human population, its major theories, distributions composition, changes and future developments of population and impacts of population problems on society as influenced by vital processes. Prerequisite: 45.211.
- 45.468 Social Service Planning (3)** - Provides an advanced consideration of the social context of the development of social policy, planning and implementation of social and/or human services at federal, state and local levels of organization. A critical analysis of the social effects of social policy, planning and services on people in a service-oriented, post-industrial society.
- 45.470 Senior Seminar (3)** - Provides for individual research projects and reports with-in selected areas of interest such as the family, criminology, social services and special populations. Usually offered in the spring semester. Prerequisites: Senior status; 18 semester hours of sociology and social work; and consent of the instructor.
- 45.471 Independent Study in Sociology (3)** - Allows student to pursue individualized instruction in-depth with a faculty member in a specific area of the field not covered in current courses. Prerequisites: 45.211 and consent of instructor, chairperson and members of the department.
- 45.474 Contemporary Environmental Issues (3)** - Examines some major human problems that lead to environmental deterioration, particularly water, air and noise pollution, energy and other resource depletion and increasing population density. Prerequisite: 45.211.
- 45.477 Community Land Use Planning (3)** - Introduces the community planning process and the theoretical perspectives relevant to community land use planning. Examines selected substantive planning problem areas in the local community. Students formulate, develop and present a community land use plan. Prerequisite: 45.211.
- 45.478 Sociology of Work (3)** - Presents a sociological examination of work and the milieu of the worker. Studies formal and informal work organizations, job satisfaction and dissatisfaction, structure and organization of industrial and post-industrial societies and relationship between work organizations within communities and society. Prerequisite: 45.211.
- 45.490 Sociology of Aging (3)** - Studies aging, its major theoretical themes, patterns of living, socio-psychological and cultural consequences of aging. Examines the contemporary issues, problems and programs of the aging. Prerequisite: 45.211 or consent of instructor. Offered in spring semester only.
- 45.495 Criminal Justice Internship (1-15)** - An on-the-job apprenticeship in which students are exposed to the responsibilities, skills and activities necessary to accomplish jobs in criminal justice agencies, including public and private, local, state and federal, investigatory and correctional agencies.
- 45.496 Sociology Internship Program (1-15)** - Designed primarily for the junior or senior working in a specific institutional field and/or college-approved, off-campus activities related to student's chosen professional field. Prerequisites: Consent of the instructor and department chairperson.
- 45.497 Social Welfare Internship (10-15)** - Provides the social welfare major with the opportunity to integrate and apply knowledge, theory and understanding extracted from the foundation courses. Fosters skill development and evaluates the demonstration of beginning competencies in working with individuals, families, groups organizations and communities. 45.466 and 45.498 may be taken concurrently. Prerequisites: 45.133, 45.211, 45.215, 45.260, 45.297, 45.334, 45.450, 45.452, 45.453, 40.211, 44.120, 48.210.
- 45.498 Integrative Methods Seminar in Social Work and Social Welfare (3)** - An examination of social work practice from a system theory perspective and its functional relevance to contemporary social problems. Internship and other practice experiences are critical elements in this review course. Course is taken concurrently with or after the social welfare internship. Prerequisites: 45.133, 45.211, 45.215, 45.260, 45.297, 45.334, 45.450, 45.452, 45.453, 40.211.

ANT (46) Anthropology

Administered by Department of Anthropology.

- 46.101 Introduction to Anthropology (3)** - A beginning course for students with no background in anthropology. Provides an overview of peoples and cultures of the world today and of the past as well as the fossil evidence for human evolution. Topics may include living primates, magic and religion and kinship, marriage and sex roles. Not for students who have taken 46.200, 46.210 or 46.220.
- 46.102 Anthropology and World Problems (3)** - Explores the origins of global problems and evaluates the variety of cultural solutions to those problems. Investigates cultural values and solutions of tribal peoples holistically and compares them to those of industrialized nations in terms of their consequences and implications. Approved as a diversity course.

- 46.200 Principles of Cultural Anthropology (3) - Provides a cross-cultural study of all human behaviors in contemporary cultures. Topics surveyed include socialization; language; sex, age and kinship roles; religion and magic; marriage and the family; political and economic behavior; cultural change; and the arts. Anthropological methodology and the concept of culture also are stressed. Approved as a diversity course.
- 46.210 Prehistoric Archaeology (3) - Provides a worldwide examination of human prehistory from the origins of humankind to the development of early writing. Focuses on regional differences and similarities in key evolutionary transitions including sedentary lifeways, urban origins and the rise of states.
- 46.220 Human Origins (3) - Studies the emergence and development of humans, the biological basis of human culture and society and the origin of the social units of fossil humans.
- 46.260 Men and Women: An Anthropological Perspective (3) - A cross-cultural and evolutionary perspective on sex role behavior in past and contemporary cultures. Examines sex roles in nonhuman primates and humans. Examines sex roles in hunting and gathering, horticultural, pastoralist, peasant and other preindustrial societies are described as well as sex roles in modern industrial societies. Covers genetic and environmental theories of sex role behavior. Prerequisite: 3 semester hours of anthropology. Approved as a diversity course.
- 46.290 Race and Racism (3) - Studies race from holistic and cross-cultural perspectives. Explores biological nature of race through investigation of human evolution. Considers socio-cultural aspect through a comparative study of racial categories in cultures and societies worldwide. Approved as a diversity course.
- 46.300 Archaeological Method and Theory (3) - Explores the modern theoretical foundations of archaeology. Students read and discuss original contributions to the field and learn methods in preparation for actual fieldwork. Prerequisite: 46.210 or consent of the instructor.
- 46.301 Field Archaeology (3-6) - Provides field investigation of various prehistoric cultures in northeastern United States. Students learn excavation and recording techniques, visit important sites during field trips and become part of a unique community that studies our past.
- 46.310 Aztecs and Mayans (3) - Surveys the prehistoric cultures of Mexico and Central America. Emphasis on the development of Aztec and Mayan civilizations. Approved as a diversity course.
- 46.311 Archaeology of Northeastern North America (3) - Surveys the prehistoric cultures of the area from arrival of the first inhabitants through early historic times. Provides a laboratory for the study of broader issues of socio-cultural processes. Prerequisite: 46.210 or consent of the instructor.
- 46.312 South American Archaeology (3) - A survey of prehistoric cultures of South America. Emphasizes the civilizations of the Andean zone and the role played by the Amazonian region in the development of Andean Cultures. Prerequisites: 46.101 or 46.200 or 46.210 or consent of the instructor. Approved as a diversity course.
- 46.320 Contemporary World Cultures (3) - Presents a comparative analysis of selected non-European societies in contrasting cultural and natural areas. Indicates stresses on the natural and social environment; national character; religion and world view; and literary, artistic and musical expression. Approved as a diversity course.
- 46.333 Ethnic Identity in the United States (3) - Explores the varieties of ethnic experience in the United States. A uniquely anthropological perspective is utilized to give students a sense of how a cultural-ethnic identity is formed and maintained in our society. Special attention paid to Italians and Latinos (including Puerto Ricans) as examples of extremely different immigrant experiences. Prerequisite: 46.200. Approved as a diversity course.
- 46.340 Native North America (3) - Surveys native cultures of North America in prehistoric and early historic periods.
- 46.350 Medical Anthropology (3) - Studies of cross-cultural concepts of health, illness and curing as well as health care delivery in industrialized cultures. Includes the topics of divination and diagnosis, sorcery and witchcraft in healing, public health and preventive medicine, alcoholism and drug use and the medical knowledge of tribal and peasant societies. Approved as a diversity course.
- 46.360 Pseudoscience (3) - Sharpens critical thinking skills and deepens understanding of human belief systems and ethics by examining how science operates and evaluating extraordinary ideas that claim to be scientific. Investigates scientific-creationism, ESP, UFOs, fantastic archeology, dowsing and others.
- 46.370 Indigenous Cultures of Modern Mexico (3) - Presents an introduction to the indigenous cultures of modern Mexico, including Nahua, Otomi, Purépecha, Huastec, Zapotec, Mixtec and Maya. Focus is both historical and contemporary. Treats such subjects as religion, sacred and secular rituals, customs, folk art, sociopolitical organization, economics and culture change from an anthropological perspective. Prerequisite: 46.101 or 46.102 or 46.200 or 46.310 or 46.430 or 46.333 or 46.340 or consent of instructor.

- 46.385 Anthropology Research and Writing Skills (3) - Familiarizes students with information sources in anthropology. Students learn how to access those sources and to write and present research paper in anthropology. Basics of statistical analysis are covered. Students write, revise and present a research paper on an anthropological topic. Prerequisite: 46.200, 46.210, 46.220.
- 46.390 Socialization of the Child (3) - Examines life experience and adjustment of the individual through infancy, middle childhood and youth. Reviews contrasting methods of introducing children to adult economic, social and religious activities. Prerequisite: 46.200. Approved as a diversity course.
- 46.405 Primates (3) - Studies the various phenomena affecting primate behavior; ecology, social life and socio-cultural adaption, with emphasis on the development of socio-biological traits relating to human origins. Prerequisite: 9 semester hours of anthropology or 46.220 or any biology course.
- 46.440 Language and Culture (3) - The place of oral or non-oral language in human evolution and contemporary cultures. Topics discussed include: dialectal variation, discourse analysis, multilingualism, language and cognition and the role of language in education. Approved as a diversity course.
- 46.450 Peoples and Cultures of South America (3) - Surveys introduction to the aboriginal, non-literate cultures of South America including the ecological background, archaeology and cultural patterns. Approved as a diversity course.
- 46.466 Independent Study in Anthropology (3) - Independent study by a student with faculty guidance of a particular research problem in anthropology. The research problem either extends current course content or deals with an area not covered in the current course offerings in anthropology. A problem is chosen by the faculty member and the student working together.
- 46.470 History of Anthropological Thought and Theory (3) - Intensive survey of the leading methods and theories of anthropological and ethnological interpretation with special emphasis on the concept of culture and its practical application to modern problems.
- 46.475 Field Methods in Cultural Anthropology (3) - Provides class discussion and field experience in participant observation. Experience in interviewing, surveying, kinship charting, mapping, studying complex organizations and writing ethnographic field reports.
- 46.480 Religion and Magic (3) - A comparative analysis of the origins, forms, elements and symbolism of religious beliefs and behavior; the role of religion in society with particular reference to nonliterate societies. Anthropological theories and methods of religion, historical and contemporary. Approved as a diversity course.

- 46.495 Special Topics in Anthropology (3) - Provides for instruction and student research within selected areas of interest not available in other courses. Prerequisite: 18 semester hours of anthropology or consent of the instructor.
- 46.497 Internship in Anthropology (3-15) - An on-site training and learning experience in anthropology that provides opportunities to apply theoretical and descriptive knowledge of archaeology, cultural anthropology and physical anthropology in private and government institutional settings.

PSY (48) Psychology

Administered by Department of Psychology.

- 48.101 General Psychology (3) - Studies psychology as a system of scientific inquiry into the nature and behavior of humans. Presents major concepts, principles and processes concerned with human functioning in individuals and social settings.
- 48.131 Psychology of Adjustment (3) - Examines the personal and social meaning of psychological adjustment. Emphasizes stress and coping concepts and psychosocial competence in adulthood.
- 48.160 Basic Statistics (3) - Introduces fundamental statistical concepts and principles providing a foundation for research methodology for students who need not be mathematically inclined. Discusses computation, interpretation and application of commonly used descriptive, correlation and inferential statistical procedures for analyzing data.
- 48.210 Life-Span Psychology (3) - Examines the psychology of human development from conception to death. Discusses traditional topics and issues in developmental psychology such as cognition and personality, but within a life-span developmental perspective. Prerequisite: 48.101.
- 48.211 Child Psychology (3) - Studies normal development and the interrelationships among various aspects of biological, cognitive, personality and social factors. Emphasizes prenatal to adolescent development. Prerequisite: 48.101.
- 48.212 Adolescence (3) - Studies developmental, personal and social issues confronting adolescents as they emerge from childhood and strive for adulthood. Prerequisite: 48.101.
- 48.251 Psychological Foundations of Education (3) - Examines principles of psychology as applied to the classroom. Emphasizes learning processes as affected by environmental, experiential and developmental factors. Prerequisite: 48.101.
- 48.253 Social Psychology (3) - Studies interpersonal behavior with emphasis on affiliation, interpersonal perception and attraction, group behavior and conformity, attitude change and compliance. Prerequisite: 48.101.

- 48.254 Psychological Aspects of Social Issues (3)** - Examines the application of psychological theories and techniques to existing social issues and their relationship to alternative ethical viewpoints regarding social issues selected by the instructor for study. Prerequisite: 48.101.
- 48.281 Experimental Psychology: Methodology (3)** - Introduces experimental design, statistical analysis and issues of control and confounding. Covers one, two and three factor designs. Surveys classic experimentation as well as issues in social, developmental, educational and clinical psychology from an experimental perspective. Prerequisites: 48.101 and 48.160 (with a minimum grade of C in each).
- 48.282 Experimental Psychology: Applications (3)** - Deals with the application of experimental principles in a laboratory setting. Students learn APA writing format and statistical and graphic computer packages. Extensive writing or research reports required. Extensive laboratory research required. Students apply concepts of experimental design in a variety of research projects with both human and rats. A five-week experience with rats as subjects is required. Prerequisites: 48.101, 48.160, 48.281, all with minimum grade of C.
- 48.311 Adulthood and Aging (3)** - Studies the development of adults in our culture. Includes topics on the effects of social environment on aging, special problems of aging, sex differences during adulthood, vocational, marital and familial developments and psychology of death and dying. Emphasizes human behavior between young adulthood and senescence with emphasis on the aging process. Prerequisite: 48.101.
- 48.321 Psychological Tests and Measurements (Fall) (3)** - Introduces the logic of psychological measurement including the applied and practical aspects of psychological testing with emphasis on reliability, validity and test norms. Provides background for test evaluation. Prerequisites: 48.101, 48.160, 48.281, all with minimum grade of C or consent of the instructor.
- 48.335 Abnormal Psychology (3)** - Surveys the description, causation, prevention and treatment of maladaptive behavior and psychological disorders. Considers biological, psychological and social factors. Prerequisites: 48.101, 48.160, 48.281, all with minimum grade of C, 48.282.
- 48.336 Theories of Personality (Fall) (3)** - A critical study of theories explaining development, structure and organization of personality. Considers personality from psychoanalytic, social, individual, self and learning points of view. Prerequisites: 48.101, 48.160, 48.281, all with minimum grade of C, 48.282 or consent of the instructor.
- 48.340 Community Psychology (3)** - Surveys theory, research and action concerning the relationships between the individual and community life. Topics include the psychological sense of community, human diversity, promotion of health and socioemotional competence, citizen participation, community change and methods of community research. Prerequisites: 48.101, 48.160, 48.281, all with minimum grade of C and 6 additional semester hours in psychology..
- 48.341 Theory and Practice of Academic Psychology (3)** - Sharpens and expands knowledge of the basic principles of psychology. Provides an intensive review of the content taught in General Psychology and requires students to lead discussion groups. Prerequisites: Junior standing; 48.101, 48.160, 48.281, 48.282 and consent of the instructor.
- 48.350 Psychology of Sex and Gender (3)** - Examines the theoretical and research issues in psychological experiences of males and females. Views gender role development and implications for the daily lives of men and women from historical, biological, psychoanalytic, learning, sociological and anthropological perspectives. Prerequisites: 48.101, 48.160, 48.281, all with minimum grade of C.
- 48.356 Psychology of Motivation (Fall) (3)** - Surveys the fundamental determinants of human and animal activities. Studies theories, research methodologies and experimental evidence related to the activation and the direction of behavior. Prerequisites: 48.101, 48.160, 48.281 or consent of the instructor.
- 48.360 Cognitive Psychology (3)** - Examines the major theoretical perspectives and research in the area of cognition and presents the ways in which mental processes such as memory, perception, language and problem solving may be empirically studied. Prerequisites: 48.101, 48.160, 48.281, all with minimum grade of C, 48.282.
- 48.375 Psychology of Learning (Fall) (3)** - Examines the theoretical and experimental bases of learning in animal and human behaviors. Emphasis is on classical and operant condition and the experimental analysis of behavior. Prerequisites 48.101, 48.160, 48.281, 48.282 or consent of the instructor.
- 48.380 Behavioral Neuroscience (Spring) (3)** - Studies the relationship between psychological processes and physiological activity. Reviews neurological and biochemical bases of behavior with emphasis on the synergistic functions of the nervous system, sense organs and glandular system. Prerequisites: 48.101, 48.160, 48.281, 48.282 or consent of the instructor.
- 48.401 History of Psychology (3)** - Studies the historical development of modern psychology and compares present-day models of behavior within an historical framework. Prerequisites: 90 semester hours and completion of one of the following courses: 48.360, 48.375, 48.380, 48.335, 48.436 or consent of the instructor.

- 48.406 Psychology Seminar (3) - Provides for an advanced consideration of significant topics in psychology. Requires reports and discussions of current research and may be repeated with change in topic. Prerequisites: 48.101 and consent of the instructor.
- 48.436 Theories of Personality (3) - A critical study of theories explaining development, structure and dynamics of personality. Considers personality from psychoanalytic, social, trait, self and learning points of view. Prerequisite: 48.101, 48.160, 48.281 (minimum grade of C in each), 48.282.
- 48.439 Introduction to Clinical Psychology (3) - Surveys clinical psychology and the role of the clinical psychologist in community and hospital mental health programs, clinical assessment and diagnosis. Examines concepts in and models of psychotherapy. Prerequisites: 48.101, 48.335 or 48.436 or consent of the instructor.
- 48.451 Laboratory Training in Group Processes (3) - Offers ongoing experience on topics including norm-setting, leadership, problem solving, role playing cooperation/competition and decision making. Class size limited to 20 students. Prerequisite: 48.101 and consent of the instructor. Offered fall semester only.
- 48.453 Organizational Psychology (3) - Describes the application of psychological theory and research to the study of industrial, business, profit and nonprofit service, military and governmental organizations. Emphasizes the interaction of individual perceptions, group dynamics and organizational climate and strategies to maximize the satisfaction and effectiveness of each component within and between complex organizations. Prerequisite: 48.101, 48.253 or consent of instructor. Offered spring semester only.
- 48.464 Advanced Experimental Design (Spring, odd-numbered years) (3) - Presents an advanced consideration of the planning, conduct and evaluation of research in the behavioral and biological sciences, employing parametric and nonparametric statistics. Emphasizes inferential statistics, design, analysis, interpretation and computer utilization. Prerequisites: 48.101, 48.160, 48.281, 48.282 or consent of the instructor.
- 48.466 Independent Study in Psychology (3) - Studies a topic via either review and research of technical psychological literature or empirical manipulation of variables in the field or laboratory under supervision of a psychology faculty member. Requires written report on results of study. Prerequisites: Consent of the instructor, departmental approval and approval by the dean of the College of Arts and Sciences.
- 48.476 Principles of Behavior Modification (3) - Studies the application of learning principles to change behavior in both individual and group settings. Prerequisites: 48.101, 48.160, 48.281, all with minimum grade of C.

- 48.497 Practicum in Psychology (3-15) - Provides application of psychological knowledge through study, observation and practice in a community. May be repeated for a total of 15 semester hours. Prerequisites: 90 credit hours and completion of 48.101, 48.160, 48.281 (minimum grade of C in each) and consent of the instructor.

BIO (50) Biology

Administered by Department of Biological and Allied Health Sciences.

- 50.101 General Biology I (3) - Presents major concepts and principles of biology relating to humans. Lecture and discussion. Not applicable to biology major.
- 50.102 General Biology II (3) - Studies biology from the ecological, evolutionary and behavioral perspective with emphasis on humankind. Prerequisite: 50.101. Not applicable to biology major.
- 50.107 Medical Terminology (1) - Studies roots, prefixes and suffixes of medical terms via programmed instruction. Recommended for students in the health sciences. Pass/fail credit only. Not applicable to biology major.
- 50.110 Biology of Animals (4) - Introduces fundamental principles of zoology as applied to representative groups of animals. Laboratory work emphasizes comparative development, anatomy, physiology and behavior of representative animals. Three hours lecture/3 hours laboratory per week.
- 50.111 General Biology Laboratory (1) - Offers "hands-on" experience emphasizing biological concepts. Two hours laboratory per week. Prerequisite: 50.101 or concurrent. Not applicable to biology major.
- 50.120 Biology of Plants (4) - Introduces fundamental principles of biology as applied to the plant kingdom. Three hours of lecture/3 hours laboratory per week.
- 50.173 Anatomy and Physiology I (4) - An introductory course integrating the structure and function of the human body. Covers fundamental principles of anatomy and physiology, the chemical basis of life, cell structure and function, tissues, integumentary system, skeletal system, muscular system, nervous system and special senses. Three hours of lecture/3 hours of laboratory per week. Not applicable to biology major.
- 50.174 Anatomy and Physiology II (4) - Introductory course integrating the structure and function of the human body. Covers blood and defense mechanisms, cardiovascular system, lymphatic system, respiratory system, digestive system, metabolism, nutrition, urinary system, fluid and electrolyte balance, endocrine system, reproductive system, growth and development and human genetics. Three hours lecture/3 hours laboratory per week. Prerequisite: 50.173 or consent of the instructor. Not applicable to biology major.

- 50.200 Dendrology (3) - Covers the basic principles of dendrology: the identification, biology and economic significance of trees and shrubs. Emphasis is placed on tree species of eastern North American forests. Two hours of lecture and 10 hours of laboratory per week. Summer session only. Prerequisite: 50.120.
- 50.205 Introduction to Nutrition (3) - A foundation of nutritional concepts and practices that can be applied to personal lives and incorporated into careers. Concepts include nutritional requirements for optimal health and performance throughout the life span, making food choices in the marketplace, analyzing nutritional information in the media and controversial issues in nutrition and health. Not applicable to biology major.
- 50.211 Invertebrate Zoology (3) - Studies the principal phyla of invertebrate animals in relation to their anatomy, classification and behaviors in the ecosystems in which they participate. Field trip component at Marine Science Consortium, Wallops Island, Va., includes additional student costs. Three hours lecture/2 hours laboratory per week. Prerequisite : 50.110.
- 50.212 Vertebrate Zoology (Fall) (3) - Studies the biology of vertebrate animals, emphasizing natural history, physiology, morphology, taxonomy and behavior. Reviews evolutionary and ecological aspects of each class. Includes laboratory work with living and preserved specimens to familiarize students with representative individuals of the major classes of this group. Field trip component at the Marine Science Consortium, Wallops Island, Va., includes additional student costs. Two hours of lecture/3 hours of laboratory per week. Prerequisite: 50.110.
- 50.221 Comparative Biology of Nonvascular Plants (3) - Provides a phylogenetic study of major nonvascular plants with an emphasis on development, structure, reproduction and selected ecological aspects. Two hours lecture/3 hours laboratory per week. Prerequisite: 50.120.
- 50.222 Comparative Biology of Vascular Plants (3) - Provides a phylogenetic study of major vascular plants with emphasis on their development, structure, reproduction and selected ecological and paleobotanical aspects. Two hours of lecture/3 hours of laboratory per week. Prerequisite: 50.120.
- 50.231 Biology of Aging (3) - The biological mechanisms of the aging process are discussed with special emphasis on these processes in humans. Discussions include studies of aging at the molecular, cellular, systems and organism levels of organizations. Three hours lecture per week. Not applicable to biology major.
- 50.233 Human Genetics (3) - Explores the principles of human genetics and their application to problems in anthropology, biology, medicine, psychology, sociology and special education. Three hours of lecture/discussion per week. Prerequisite: 50.101, 50.110 or 50.120 or consent of the instructor.
- 50.240 Introductory Microbiology (3) - Presents elementary aspects of morphology, metabolism and cultivation of bacteria, viruses and other microorganisms with consideration of their relationship to public health and various industrial processes. Two hours lecture and 2 hours laboratory per week. Not applicable to biology major.
- 50.242 Biology of Microorganisms (4) - Introduces the fundamental principles of nomenclature, classification, microscopy, cytology and anatomy, cultivation, growth, metabolism and genetics of the microbial world. Microbial interrelationships and control are integrated into a systematic approach to classical microbiology as it relates to humans and the environment. Three hours of lecture/3 hours of laboratory per week.
- 50.252 Field Zoology (Summer/odd-numbered years) (3) - Studies animals (mainly vertebrates) with emphasis on field observation and recognition and some collections. Also the class visits various field zoologists' study sites to learn about this profession. Field trip to Wallops Island at additional student cost. Two hours of lecture/3 hours of laboratory per week. Prerequisite: 50.110 or consent of the instructor.
- 50.253 Freshwater Biology (Summer) (3) - Emphasizes the chemical, physical and biological aspects of freshwater environments. Two hours of lecture/3 hours of laboratory per week. Prerequisites: 50.110 and 50.120 or consent of the instructor.
- 50.254 Social Implications of Biology (3) - Explores the societal implications of current thought in biology. Addresses values, ethics and responsible decision making. Three hours of lecture and discussion per week. Not applicable to biology major. .
- 50.263 Field Botany (Summer/even-numbered years) (3) - Field identification of local vascular plants, principles of plant systematics, ecology and evolution. Two hours of lecture/3 hours laboratory per week. Prerequisite: 50.120 or consent of the instructor.
- 50.271 Cell Biology (4) - Examines the structure and function of the cell and its organelles. Emphasis on general principles and processes by which all cells function. Three hours of lecture/3 hours of laboratory per week. Prerequisites: 50.110 or 50.120 and 52.115 or 52.118.
- 50.290 Writing in Biology (3) - Provides experience in types of communication useful in a natural science with a basis in experimentally acquired information. Emphasizes types of written communication; includes oral presentations. Prerequisites: 20.101 or 20.104 and completion of two biology courses (50.110, 50.120 or 50.242). Word processing skills are highly recommended.

- 50.331 Embryology (Spring/even-numbered years) (3) - Reviews the patterns, processes and principles of animal development. Laboratory studies emphasize descriptive embryology of a number of representative vertebrates with emphasis on amphibian, avian and mammalian development. Field trip component at Marine Science Consortium, Wallops Island, Va., includes additional student costs. Two hours of lecture/3 hours of laboratory per week. Prerequisite: 50.110 or consent of the instructor.
- 50.332 Genetics (3) - Addresses mechanisms of heredity in animals and plants; Mendelian inheritance, linkage, probability, crossing over, chromosomal modifications, nucleic acids and gene action. Three hours of lecture/2 hours of laboratory per week. Laboratory hours will vary. Prerequisite: 50.271.
- 50.342 Medical Bacteriology (4) - Provides a study of bacteria capable of causing disease in humans. Emphasizes laboratory aspects of bacterial disease but includes pathogenicity, identification, diagnosis, treatment and prevention. Three hours of lecture/3 hours of laboratory per week. Prerequisites: 50.242 and 50.271.
- 50.343 Immunology (3) - Introduction to components and functions of human immune system; application of immunology to infectious disease, blood transfusion organ transplantation and cancer; consideration of conditions involving the immune system such as immunodeficiencies (AIDS), allergies and autoimmune diseases. Prerequisites: 50.271; and a background in genetics organic/biochemistry and/or infectious diseases recommended.
- 50.350 Plant Pathology (3) - Examines the nature of vascular plant diseases, the biology of plant pathogens and the impact of diseases on human affairs. Lecture stresses principles of plant pathology: disease and pathogen classification, modes of pathogenesis, host response to disease and disease control. Laboratory stresses identification of plant pathogens and disease symptoms, histology of diseased tissues and research techniques. Three hours of lecture/2 hours of laboratory per week. Prerequisites: 50.242 and 50.271; or consent of the instructor.
- 50.351 General Ecology (3) - Introduces principles and concepts pertaining to energy flow, limiting factors, habitat studies, succession patterns and population studies at the species, interspecies and community level. Field trip component at the Marine Science Consortium, Wallops Island, Va., may incur additional student costs for food and lodging. Two hours lecture/3 hours laboratory per week. Prerequisite: 50.110 or 50.120 or consent of the instructor.
- 50.361 Comparative Vertebrate Anatomy (Spring/odd-numbered years) (3) - Presents a comparative study of the chordates emphasizing the vertebrate classes. Attention given to structure, morphogenesis, functional adaptations and evolutionary trends. Laboratory emphasis is placed on the lamprey, shark and cat. Field trip component at Marine Science Consortium, Wallops Island, Va., includes additional student costs. Two hours of lecture/3 hours of laboratory per week. Prerequisite: 50.110 or consent of the instructor.
- 50.364 Vertebrate Histology (3) - Studies the structure and function of vertebrate cells and tissues from various body systems. Laboratory studies include the use of prepared microscope slides and color photomicrographs. Two hours lecture/3 hours laboratory per week. Prerequisite: 50.271 or consent of instructor.
- 50.365 Histological and Histochemical Techniques (3) - Provides theory and practice in the use of histological and histochemical techniques in a laboratory format. Fixation, preparation embedding, sectioning and staining of various animal tissues. One hour lecture/4 hours laboratory per week. Prerequisites: 50.364 or 52.131 recommended or consent of the instructor.
- 50.366 Anatomy and Physiology: Head, Neck and Thorax (Spring) (3) - Focuses on the anatomy, physiology and development of the head, neck and thorax. Emphasizes the organ systems that relate to the hearing and speech mechanisms. Three hours lecture/2 hours laboratory per week. Preference given to students in communication disorders. Not applicable to biology major.
- 50.371 Principles of Mammalian Physiology (4) - Studies principles of cell physiology that are basic to the function of the following mammalian tissue and systems; blood, metabolic, neuromuscular, cardiovascular and urinary. Neural and chemical processes of the aforementioned are emphasized. Three hours of lecture/3 hours of laboratory per week. Prerequisites: 50.271, 52.131 and 52.216 or consent of the instructor. A background in organic chemistry and algebra and, at least, sophomore standing recommended.
- 50.372 Plant Physiology (Spring) (3) - An introduction to plant function including discussions of water relations, carbohydrate metabolism and translocation, photosynthesis, mineral nutrition, plant growth hormones and growth and development. Three hours lecture per week. Prerequisites: 50.120 and 50.271, 52.131 or 52.216 or consent of the instructor.
- 50.380 Biology Seminar (1) - Emphasizes preparation and presentation of biological topics in both oral and written formats. Prerequisite: junior standing or minimum of 64 semester hours completed.

- 50.390 Independent Study in Biology I (1-3) - Acquaints students with techniques of scientific research, data collection and analysis by engaging in a program of research with the aid of a faculty member. Research culminates in a scholarly paper written by the student that presents findings of the laboratory or field investigation in a form suitable for publication. Refer to section on cooperative education, internship and independent study Prerequisite: junior standing.
- 50.391 Independent Study in Biology I (1-3) - Acquaints students with techniques of scientific research, data collection and analysis by engaging in a program of scientific research with the aid of a faculty member. Prerequisite: 50.390.
- 50.411 Radiation Biology (3) - Studies effects of radiation on living organisms and nuclear structure; studies fundamental properties of radiation, including physical, chemical and genetic effects on plants and animals from cells to whole organisms; studies application of radiochemicals in biological studies. Minimum of 4 hours per week including laboratory. Prerequisite: 50.232, 50.233, 53.141 or consent of the instructor.
- 50.430 Evolution (3) - Studies the major concerns of the theory of evolution and contributions toward their solutions made by genetics, paleontology, systematics and ecology. Three hours of lecture per week. Prerequisites: 50.332 or 50.351 or permission of the instructor.
- 50.432 - Microbial and Molecular Genetics (3) - A study of macromolecules, macromolecular complexes, protein synthesis and gene regulation using viruses, bacteria and lower eukaryotes. Topics include DNA/ chromosome structure, genetic recombination, plasmids, transposons, recombinant DNA and genetic analysis. Three hours of lecture and two hours of laboratory per week. The laboratory hours will vary. Prerequisites: Two of the following: 50.242, 50.332, 52.341; or permission of instructor.
- 50.441 Cytogenetics (3) - Examines structure and behavior of chromosomes and their effects on development. Describes human genetic syndromes and the effects of chromosome abnormalities. Explores relationships between chromosomes, oncogenes and cancer. Laboratory studies include cell culture methods, microscopic techniques and karyotype preparation. Two hours of lecture/2 hours of laboratory per week. Prerequisites: 50.233 or 50.332 and 50.271; or consent of the instructor.
- 50.442 Virology of Mammals (3) - Introduces viral structure, classification, replication, genetics and pathogenesis. Studies entail the diagnosis, prevention and treatment of viral infection and families of viruses that cause disease in humans and other mammals. Includes such current topics as AIDS and tumor virology. Prerequisites: At least one course from 50.332, 50.342, 50.343, Chemistry 52.341; background in microbiology recommended.
- 50.450 Mycology (3) - A critical survey of the kingdom Fungi, with emphasis on the Ascomycota, Basidiomycota and Deuteromycota. Lectures cover the topics of morphology, physiology, biochemistry, cytology, genetics, systematics, ecology and evolution. Laboratory stresses comparative morphology of higher fungi, laboratory techniques and field mycology. Two hours of lecture/3 hours of laboratory per week. Prerequisites: 50.271; one course in genetics recommended; or consent of the instructor.
- 50.451 Conservation Biology (3) - Presents the science of preserving biodiversity and sustaining the earth. Draws on and synthesizes information from the fields of ecology, evolution, genetics, philosophy, economics, sociology and political science. Emphasis on the development of strategies for preserving populations, species, biological communities and entire ecosystems in the face of growing human populations and their impact on the environment. Brings scientific principles and theory to bear on problems of management for preserving the richness of life on earth. Three hours of seminar per week. Prerequisites: 50.110; 50.120; 50.351; 41.105 or consent of the instructor.
- 50.453 Neotropical Biology (3) - Studies the biology of the neotropics with an emphasis on the Central or South American neotropics. Students will deliver a seminar, write a term paper, participate in class discussions, turn in a field trip notebook and study selected readings in neotropical biology. A one to two week trip to the neotropics is required and students will incur travel expenses exclusive of tuition and fees of approximately \$2,000. Prerequisites: 50.110; 50.120; 50.351; 41.105 or consent of the instructor.
- 50.455 Environmental Microbiology (3) - Studies the interactions of microbes with plants and animals and with each other in natural air, water and soil habitats. The roles of microbes in biogeochemical cycling, pollution and waste management are reviewed. Lab experience in sampling, counting and monitoring microbes in the environment. Four hours per week. Additional time may be required. Prerequisite: 50.242 or consent of instructor.
- 50.457 Entomology (3) - Studies the physiology, morphology, behavior, classification and general biology of the insects. A collecting period provides an opportunity for students to collect, mount and properly display insects for study. Taxonomic emphasis limited to order and family. Equivalent to 5 hours per week including laboratory.

- 50.458 Fungal Ecology (3) - A broad treatment of the ecology of fungi, examination of such topics as fungal decomposition of wood and bark, fungal decomposition of forest litter, ecology of aquatic fungi, community structure of soil and/or dung fungi, ecology of predaceous fungi and aspects of mycorrhizal symbioses. Topics vary with each semester. Laboratory includes field component and stresses demonstration of basic principles, testing existing and formulating new hypotheses and research techniques. Two hours of lectures/3 hours of laboratory per week. Prerequisite: 50.351 or concurrent enrollment or consent of the instructor.
- 50.459 Ornithology (3) - Studies the biology of birds including bird identification in the field by song and sight, anatomy, physiology, behavior, ecology and other aspects. Two hours of lecture/3 hours of laboratory per week. Some study off-campus may be required. The field trip component at Marine Science Consortium, Wallops Island, Va., includes additional student costs. Prerequisite: 50.110 or consent of the instructor.
- 50.460 Population Biology (3) - Presents selected themes in the biology of animal, plant and fungal populations. Topics include: population structure and dynamics, population genetics, population ecology and speciation. Fundamental principles and current models and hypotheses will be stressed, along with treatments of research techniques, computer modeling and potential for future research. Three hours of lecture/discussion per week.
- 50.461 Animal Behavior (3) - In depth introduction to modern ethology. Emphasizes current models of animal behavior and theoretical foundations of ethology. Research and project oriented. Students may incur additional cost due to the field trip component at Marine Science Consortium, Wallops Island, Va. Three hours of lecture/2 hours of laboratory per week.
- 50.462 Plant Anatomy (3) - Outlines recent concepts of plant anatomy and historical consideration of classical researchers. Reviews the structure, function, growth and morphogenesis of the vascular plants. Addresses composition and growth of meristems and the phenomena of subsequent tissue differentiation. Describes anatomical organization by developmental and comparative methods in order to explain important cell, tissue and organ relationships. Two hours of lecture/3 hours of laboratory per week. Prerequisite: 50.120.
- 50.463 Biological Photographic Techniques (3) - Presents theory and practice of photography as applied to biology including negative and printmaking, gross specimen photography, copying, transparencies, filmstrips, autoradiography, nature work in close-ups, photomicrography, thesis illustrations and other special techniques. Open only to majors in biology or allied health with at least junior standing. Two hours lecture, 3 hours laboratory per week. Additional laboratory hours may be required.
- 50.470 Medical Parasitology (3) - Presents life history, physiology, taxonomy and morphology of parasites of medical importance to humankind. Special attention given to clinical aspects such as pathology, symptomology, diagnosis, prevention and treatment. Laboratory work stresses identification of parasitic disease through living and preserved material, the proper handling of specimens and methods of professional patient interviewing. Five hours per week. Prerequisite: 50.110 and 52.131 or 52.216 or consent of the instructor. Completion of additional coursework in biology recommended.
- 50.473 Systemic Physiology (3) - Examines how normal body function is maintained by the precise control and integration of the specialized activities of the various organ systems. Three hours of lecture/ 2 hours of laboratory per week. Prerequisites: 50.271, 52.131, 52.216 and 50.371 or 50.174.
- 50.475 Cell Physiology (3) - Applies physical and chemical principles to cellular processes, biochemistry or cellular constituents, physicochemical environment, bioenergetics and intermediate metabolism. Three hours lecture and discussion per week. Prerequisites: 50.271 and 6 semester hours of biology; 52.216 or 52.232 or consent of the instructor.
- 50.476 Neuromuscular Physiology (3) - Examines normal physiology of the nervous and skeletal muscular systems; specifically studying cellular neurophysiology, muscle contraction, sensory physiology, motor control and their integration. Three hours lecture and discussion per week. Background in mammalian or systemic physiology, biochemistry and anatomy recommended. Prerequisites: 54.112 and 50.371 or 50.473.
- 50.481-50.489 Advanced Special Topics, Biology/Allied Health Sciences (3) - Presents an area of biology or allied health which requires the student to have some background in biology. Three semester hours may be applied to a biology major. Prerequisite: Determined by the instructor.
- 50.490 Internship in Biology and Biology Research (3-15) - A work-study program open only to juniors and seniors majoring in biology and allied health sciences. No more than 15 semester hours in Cooperative Education and/or internship may be taken. .
- 50.493 Honors Independent Study I - Biological Research (3) - Consists of a laboratory or field investigation of a particular problem or topic in biology. The study will be conducted under the supervision of a biology faculty member. The course is open to students enrolled in the B.A. and B.S. in biology degree programs. Refer to section on cooperative education, internship and independent study. Prerequisite: 50.380 and admission to the Honors Program.

- 50.494 Honors Independent Study II - Biological Research (3) - Consists of a laboratory or field investigation of a selected problem or topic in biology. The study will be conducted under the supervision of a biology faculty member. This course completes the requirements for Biology Honors research. Prerequisite: 50.493.

ESS (51) Geology and Earth Science

Administered by Department of Geology and Earth Science.

- 51.100 Environmental Geology (3) - Application of geologic knowledge to environmental concerns. Emphasizes energy, soil, mineral and water resources along with Earth processes that are hazardous to humans. An afternoon field trip with a nominal fee is required.
- 51.101 Physical Geology (3) - Studies the landscape in relation to the structure of the earth's crust; agents at work to change landforms; classification and interpretation of rocks. One semester hour optional lab; an afternoon field trip is required.
- 51.102 Historical Geology (3) - Examines the evolution of earth and life on earth as interpreted from rock and fossil evidence; particular emphasis is on the geologic history of North America. One semester hour optional lab; afternoon field trip is required.
- 51.103 Dinosaurs (3) - Designed to use a single broad topic of current popular interest as the basis for exploration of important concepts and/or themes in Earth's history. Dinosaurs and their relatives will be used to illustrate origination and extinction of species through time as well as interaction of organisms with each other and the environment.
- 51.106 The Planets (3) - Introduces students to the origin, evolution and geology of the solar system, paying particular attention to the terrestrial planets and icy satellites of the outer planets. Emphasis on results returning from recent and current planetary missions.
- 51.107 Natural Disasters (3) - Principles of Earth's internal and external processes are explored through an examination of their manifestations as naturally-occurring disasters and the resultant impact on human life and property.
- 51.111 Physical Geology Laboratory (1) - Presents an introduction to the practice of fundamental geology laboratory techniques including qualitative and quantitative analysis. Two hours of laboratory per week. It is recommended that course be taken concurrently with 51.101.
- 51.112 Historical Geology Laboratory (1) - Provides an interpretation of Earth's history through the identification and evolution of the rock and fossil record and through the interpretation of geologic maps. Two laboratory hours per week. It is recommended that course be taken concurrently with 51.102.
- 51.255 Meteorology (3) - Studies the atmosphere via the use of gas laws and the underlying principles of atmospheric change. The field trip component incurs an additional cost to students of approximately \$20 for airfare.
- 51.259 Oceanography (3) - Provides an introduction to the geologic, chemical and physical aspects of the ocean basins. Emphasizes wave motion, topographic features, ocean basin structure, current circulation and methods of investigation. A weekend field trip is encouraged.
- 51.260 Earth Materials (4) - Explores the origin, occurrence and identification of the common materials and of igneous, sedimentary and metamorphic rocks, with emphasis on practical means of recognition. Three hours lecture, two hours laboratory per week. Prerequisite: 51.111.
- 51.261 Mineralogy (Fall) (4) - Reviews the origin, occurrence and identifying characteristics of common minerals. Stresses megascopic and microscopic techniques. Three hours of class, 2 hours of laboratory per week. Prerequisite: 51.101 and 51.111 or permission of the instructor.
- 51.262 Petrology (Spring) (4) - Presents megascopic and petrographic analysis and identification of rocks with emphasis on field occurrences and associations. Three hours of class, 2 hours of laboratory per week. Prerequisite: 51.261.
- 51.265 Geomorphology (Fall) (4) - Study of the origin of landforms with emphasis on the geologic processes and structures that generate the landforms and applications of landform analysis. Two-day weekend field trip is required. Three hours of class, 2 hours of laboratory per week. Prerequisites: 51.101 and 51.111 or consent of instructor.
- 51.320 Remote Sensing of the Earth (3) - Studies the use of remote sensing technology to explore for, monitor and manage Earth's natural resources. Two hours of class, 2 hours of laboratory per week. Prerequisite: 53.112 or higher or consent of the instructor.
- 51.355 Synoptic Meteorology (3) - Presents observation and analysis of data for understanding and predicting the complexities of the atmosphere. Prerequisite: 51.255 or consent of instructor.
- 51.360 Introduction to Paleontology (4) - Introduces students to modern concepts and methods in paleobiology using examples from various groups of organisms important in the fossil record. Field trips and laboratory work are an integral part of this course. Prerequisite: 51.102, 51.112 or 50.211 or consent of the instructor.
- 51.369 Structural Geology (Spring) (4) - Analyzes rock deformation based upon the principles of rock mechanics and the utilization of data from field investigations. Three hours of class, 2 hours of laboratory per week. Prerequisites: 51.101 and 51.111 or consent of instructor.
- 51.370 Hydrology (Fall) (3) - Study of water movement upon and within the Earth with emphasis on calculations used in flood forecasting, surface water supply and groundwater supply. Two hours of class, 2 hours of laboratory per week. Prerequisite: 51.101 or 51.105.

- 51.451 Field Techniques in Earth Science (Summer) (6) - Provides intensive field and laboratory training in the use of equipment and techniques in geology, hydrology and cartography. Field trips are integral, vital parts of the course. Prerequisite: 15 semester hours in earth science courses or consent of the instructor.
- 51.460 Aqueous Geochemistry (4) - Introduces students to basic geochemical properties of surface and groundwater as well as controls on the geochemistry of natural waters. An emphasis is placed on the methods of sampling and analysis of natural waters for chemical species pertinent to environmental and pollution studies. Three hours lecture and two hours laboratory. Prerequisite: 51.261 and 51.216 or permission of the instructor.
- 51.410 Volcanoes (1) - Explores the composition and processes of the Earth as it relates to the occurrence and activity of volcanoes around the world. Considers styles and hazards of eruptions, the state of prediction and the formation of lava and volcanic rocks. Recommended for in-service and pre-service teachers. Does not satisfy general education requirements. Summer only, three hour class per day for one week.
- 51.468 Stratigraphy and Sedimentation (Fall) (4) - Studies processes and agents which erode, transport and deposit sediments and the geologic interpretation of the resulting rocks. Three hours of class, 2 hours of laboratory per week. Prerequisite: 51.101 and 51.111, 51.102, 51.112 or permission of the instructor.
- 51.470 Groundwater Hydrology (Spring) (3) - Covers well hydraulics exploration techniques, groundwater flow theory, development of groundwater supplies and prevention or correction of groundwater pollution. A one- or two-day field trip required. Two hours of class, 2 hours of laboratory per week. Prerequisites: 51.101 and 51.111 and 51.365.
- 51.475 Independent Study in Earth Science (1-3) - Provides an opportunity for student research in various areas of earth science. Research is conducted under the supervision of a faculty member. See subsection of the catalog on Independent Study. Prerequisite: 21 semester hours in earth science.
- 51.480 Applied Geophysics (4) - Examines the theory and application of geophysical methods for exploring the Earth's subsurface environment. Emphasis on those tools used by agencies or companies involved in resource and environmental assessment. Three hours of lecture and two hours of laboratory per week. Prerequisites: 51.101, 53.123 and 54.111 or permission of the instructor.
- 51.490 Special Topics in Geology (3) - Study of a particular concept, problem or special topic or new ideas in any area of earth science. Topic chosen through common interests of the instructor and each student. .

- 51.493 Bibliography and Research (3) - Provides for library and/or field research in geology. Prerequisites: 51.261, 51.262, 51.468 or consent of the instructor.
- 51.511 Volcanoes (1) - Explores the composition and processes of the Earth as it relates to the occurrence and activity of volcanoes around the world. Considers styles and hazards of eruptions, the state of prediction and the formation of lava and volcanic rocks. Recommended for in-service and pre-service teachers. Does not satisfy general education requirements. Summer only, three hour class per day for one week.

CHM (52) Chemistry

Administered by Department of Chemistry.

- 52.100 Chemistry and the Citizen (3) - Discussion of chemical principles, the importance of chemistry, the use of chemicals and their impact on society and the environment. Three hours of class per week.
- 52.101 Introductory Chemistry (3) - Presents an introduction to chemistry for students with little or no background in chemistry. Surveys the principles of chemistry with emphasis on the fundamentals of chemical and physical measurements and calculations. Three hours of class per week. Not intended as a beginning course for science majors.
- 52.108 Physiological Chemistry (Spring) (4) - Surveys the essentials of organic and biochemistry. Includes bonding, structure, nomenclature organic functional group reactions and metabolism of biomolecules. Three hours class, two hours of laboratory per week. Prerequisite: 52.101.
- 52.115 Fundamentals of Inorganic Chemistry (4) - Introduces descriptive inorganic chemistry and the chemical principles necessary to understand the descriptive material. First half of two-semester sequence for natural science or mathematics majors. Partially fulfills core requirement in inorganic chemistry for American Chemical Society. Three hours of lecture/3 hours of laboratory per week. Prerequisite: High school chemistry or equivalent recommended.
- 52.131 Fundamentals of Organic Chemistry (4) - Emphasizes structure, stereochemistry, functional group organization, physical properties and classical reactivity of organic compounds. Three hours of lecture and 3 hours of laboratory per week. Prerequisite: 52.115.

- 52.216 Chemical Principles and Measurements (4) - Second semester of introductory chemistry for natural science and mathematics majors. Surveys principles of chemical stoichiometry, intermolecular forces, kinetics and thermodynamics as they apply to phase, electrochemical and acid-base phenomena. Laboratory work illustrates chemical principles and emphasizes common chemical measurements. Three hours of lecture and 3 hours of laboratory per week. Prerequisite: 52.115 plus high school Algebra II or equivalent.
- 52.232 Intermediate Organic Chemistry (4) - A continuation of organic topics, building on 52.131. Introduces spectroscopy and the application toward structure determination. Emphasizes reaction mechanisms, stereo-chemistry, syntheses and analyses of representative compounds. Three hours of lecture and 4 hours of laboratory per week. Prerequisite: 52.131.
- 52.233 Organic Spectroscopy (Fall) (2) - Introduces spectroscopy to complement physical property characterization of organic compounds. Recommended for biology and allied health majors. Includes laboratory attainment of spectra and interpretation. Two hours of lecture-problem solving per week. Prerequisites: 52.131, 52.232 completed or concurrent.
- 52.321 Analytical Chemistry I (Fall) (3) - Introduces fundamental principles of chemical analysis utilizing classical wet chemistry and modern instrumental techniques. Stresses laboratory skills in the analysis of common commercial or environmental materials. Two hours of lecture and 4 hours of laboratory per week. Prerequisite: 52.216.
- 52.322 Analytical Chemistry II (4) - Presents the theory and laboratory applications of common methods of instrumental analysis. Topics include spectrophotometry, chromatography, mass spectrometry, nuclear magnetic resonance and electrochemistry. A laboratory centered course. Three hours of lecture and 4 hours of laboratory per week. Prerequisites: 52.321 and 52.362 completed or concurrent.
- 52.281 Introduction to Scientific Literature (Spring) (1) - Stresses the use of the library and scientific journals to facilitate the formulation of scientific research proposals and presentations. Experience gained in using the literature to design a senior research project and to make presentations to an audience of faculty and peers. One hour class per week. Prerequisite: Advanced standing as a natural science major.
- 52.341 Biochemistry (4) - Emphasizes structure, reactivity and metabolic reactions of the naturally occurring biomolecules. Discusses selected topics from the various metabolic pathways (both anabolic and catabolic). Introduces biochemical techniques encountered by the modern biochemist. Three hours of lecture and 4 hours of laboratory per week. Prerequisites: 52.131, 52.216.
- 52.361 Physical Chemistry I (Fall) (4) - Studies thermodynamics; Gibbs free energy and equilibrium; kinetic theory of gases and solutions; chemical kinetics. Three hours of lecture and 4 hours of laboratory per week. Prerequisites: 52.115, 52.216, 53.225, 54.212.
- 52.362 Physical Chemistry II (Spring) (4) - Continuation of 52.361; Schrodinger quantum mechanics, solid state, molecular orbital theory; spectroscopy. Three hours of lecture and 4 hours of laboratory per week. Prerequisite: 52.361.
- 52.442 Biochemistry II (4) - Continuation of 52.341; amino acid metabolism, photosynthesis, nucleotide metabolism, replication, transcription, translation, control of gene expression, molecular physiology. Laboratory to emphasize enzyme isolation and molecular biology techniques. Three hours of lecture and 3 hours of laboratory per week. Prerequisites: 52.341 or equivalent or consent of the instructor.
- 52.482 Advanced Topics in Chemistry (3) - Advanced course dealing with specialized topics of interest to students in ACS degree track. Subject matter varies. Course may be taken more than once provided subject matter is not repeated. Prerequisite: Consent of the instructor.
- 52.452 Advanced Inorganic Chemistry (Spring) (4) - Theories and principles of inorganic chemistry; coordination chemistry organometallic chemistry, systematic analysis of periodic relationships and properties of important elements. Three hours of lecture and 4 hours of laboratory per week. Prerequisites: 52.115; 52.362 concurrent.
- 52.491 Independent Study I: Special Topics in Chemistry (1-3) - Entails a directed laboratory or library oriented investigation of one or more topics of mutual interest to student and instructor.
- 52.492 Independent Study II: Introduction to Research (1-3) - Requires a search of chemical literature and a written survey report of the search. A detailed plan of research (to be implemented in 52.493) is developed in a second written report. Prerequisite: approval of chemistry department.
- 52.493 Independent Study III: Chemical Research (3) - Investigations of selected chemical problems for advanced students. Approximately 120 hours per semester. Prerequisites: 52.492, approval of chemistry department.
- 52.494 Honors Independent Study IV: Chemical Research (3) - The third semester of a laboratory investigation of selected problems under the supervision of a chemistry faculty member. Approximately 120 hours per semester. Prerequisite: enrollment in the honors program.
- 52.498 Internship in Chemistry (3-15) - A work-study program, this course is not applicable toward a major or minor in chemistry. Prerequisites: approval of chemistry department; junior or senior standing.

MAT (53) Mathematics

Administered by Department of Mathematics and Computer Science.

- 53.101 Mathematical Thinking (3) - Presents mathematical topics and applications in a context designed to promote quantitative reasoning and the use of mathematics in solving problems and making decisions. Suitable for majors in humanities, education and others seeking a broad view of mathematics. No background in algebra required.
- 53.111 Finite Mathematics (3) - Presents an introductory development of counting techniques, probability spaces and game theory. Prerequisite: two years of high school algebra or equivalent.
- 53.112 Trigonometry (3) - Studies elementary algebraic functions and relations, exponential and logarithmic functions, circular functions and inverse functions and their applications. Prerequisite: 53.114 or two years of high school algebra or high school trigonometry or their equivalent.
- 53.113 Pre-Calculus (3) - Studies elementary algebraic functions and relations, exponential and logarithmic functions, circular functions and inverse functions and their applications. Prerequisite: 53.114 or two years of high school algebra or the equivalent.
- 53.114 College Algebra (3) - Studies fundamental algebraic concepts and develops the mathematical and computation skills necessary to apply algebraic techniques to problems in business, economics, the social and natural sciences and the liberal arts. Prerequisite: 1 1/2 years of high school algebra or the equivalent. Not open to students with a C- or higher recorded for 53.113, 53.123 or 53.125.
- 53.118 Applied Matrix Algebra (3) - Introduces vectors, matrices, linear equations and linear programming with applications to the social and biological sciences and business. Prerequisite: two years of high school algebra or equivalent.
- 53.123 Essentials of Calculus (3) - Presents the basic concepts of elementary calculus in a nonrigorous approach for students who are not mathematics majors. Pertinent topics in the real number system, analytic geometry, functions and limits prepare the student for the study of the basic techniques of applications of differentiation and integration. Course is not for chemistry, mathematics or physics majors. Prerequisite: At least two years of high school algebra or 53.114 or consent of the instructor.
- 53.125 Analysis I (3) - Designed to meet part of the major-level mathematics requirement; first in the sequence of four calculus courses. Provides the basic tools for differentiation and the beginnings of integration for functions of a single variable. Prerequisite: four years of high school mathematics including a year of elementary functions or equivalent of 53.113. TI-85 graphical calculator is required.
- 53.126 Analysis II (3) - Studies techniques of integration, functions, infinite series, Taylor's theorem, some special differential equations and polar coordinates. Prerequisite: 53.125. TI-85 graphical calculator is required.
- 53.141 Introduction to Statistics (3) - Presents the concepts necessary to use and understand basic statistical techniques. Topics include: descriptive statistics, probability, random variables, sampling distributions, hypothesis tests, confidence intervals and analysis of variance. Prerequisite: High school algebra.
- 53.185 Discrete Mathematics (3) - An introduction to set theory, logic, combinatorics and graph theory for those interested in mathematics or computer science. Not usually taken during the freshman year. Prerequisite: 53.125 or consent of instructor.
- 53.201 Theory of Arithmetic (3) - Presents the language of sets, the four elementary operations through the real number system and the elementary theory of numbers. Course is open only to majors in elementary education, special education or communication disorders.
- 53.202 Geometry and LOGO for Elementary Teachers (3) - Presents the content of geometry for the elementary curriculum using geometric models, inductive reasoning and the LOGO computer language. Course is open only to majors in elementary education, special education or communication disorders. Prerequisite: Sophomore status or above or consent of the instructor.
- 53.225 Analysis III (3) - Presents infinite sequences and series, power series, Taylor and Maclaurin series, three dimensional vector analysis and partial derivatives. Prerequisite: 53.126.
- 53.226 Analysis IV (3) - Presents an introduction to the differentiation and integration of real valued functions of several variables. Presents curves and parametric equations, surfaces, Taylor's, Stoke's and Green's theorems, functions between Euclidean spaces and multiple integrals. Prerequisite: 53.225.
- 53.231 College Geometry (3) - Presents elementary geometry from an advanced standpoint. Discusses incidence in the plane and in space, congruence, inequality and similarity concepts. Studies properties of circles, polygons and spheres. Prerequisite: High school geometry, 53.185.
- 53.241 Probability and Statistics (3) - Calculus-based study of probability and statistics. Topics covered include: descriptive statistics, probability, discrete and continuous random variables, common distributions, sampling distributions, estimation procedures and inferential statistics. A more rigorous course than 53.141. Prerequisites: 53.126 (or concurrent) and 53.185.

- 53.243 Nonparametrics Statistics (3) - Presents standard nonparametric statistical procedures. After a brief review of hypothesis testing fundamentals, topics such as goodness-of-fit tests, one and two-sample procedures for location parameter, tests of randomness and association analysis are covered. Prerequisites: 53.123 or 53.125 and 53.141 or the equivalent.
- 53.303 Mathematical Problem Solving for Teachers (3) - Examines mathematical problem solving, number sense, pattern recognition and mathematical reasoning. Basic problem solving, use of manipulatives and assessment are covered. Games involving mathematical problem solving are examined and designed. Requires off-campus observations and testing. For elementary and secondary education majors. Prerequisite: 53.201. Must be taken concurrently with 60.201 or permission of the instructor.
- 53.310 Introduction to Abstract Algebra (3) - Provides an introduction to the language and methods of abstract mathematics. Subjects include sets, relations, rings, functions, groups and fields. Prerequisites: 53.185 with a minimum grade of C- and 53.225.
- 53.311 Algebra for Secondary School Teachers (Fall/even-numbered years) (3) - Presents topics of elementary algebra from an advanced viewpoint. Considers topics of contemporary school mathematics programs. Intended for students in secondary education majoring in mathematics. Prerequisite: 53.310.
- 53.314 Linear Algebra (3) - Studies abstract vector spaces, linear transformation, matrices, determinants, inner product spaces and related topics. Prerequisites: 53.185 and 53.225.
- 53.322 Differential Equations (3) - Studies elementary ordinary differential equations, infinite series and power series solution, some numerical methods of solution and LaPlace transforms. Prerequisite: 53.225.
- 53.331 Modern Geometry (Spring/odd-numbered years) (3) - Presents non-Euclidean geometrics and their development from postulate systems and a formal approach to projective geometry. Prerequisite: 53.231.
- 53.341 Statistical Methods (Fall, even-numbered years) (3) - Presents common statistical techniques with emphasis on applications. Topics include: confidence intervals, hypothesis test, regression analysis and analysis of variance. Strongly encourages use of statistical software, especially SAS. Prerequisite: 53.141 or 53.241 or consent of the instructor.
- 53.342 Design and Analysis of Experiments (Spring, odd-numbered years) (3) - Basic experimental statistics including methods of estimation and hypothesis testing, analysis-of-variance procedures, principles of experimental design, completely randomized and randomized complete block designs, factorial arrangements of treatments, linear regression and correlation analysis, covariance analysis and distribution-free methods. Prerequisite: 53.141 or 53.241 or consent of the instructor.
- 53.343 Applied Regression Analysis (Fall, odd-numbered years) (3) - A basic course in multiple linear regression methods including weighted least squares, stepwise regression, residual analysis and applications to mathematical models. Treats problems which involve the use of computing equipment. Prerequisite: 53.141 or 53.241 or consent of the instructor.
- 53.360 Number Theory (3) - Presents the theory of numbers. Includes the topics of Euclidean algorithm, congruences, continued fractions, Gaussian integers and Diophantine equations. Prerequisites: 53.185 and 53.225.
- 53.361 Coding and Signal Processing (Fall) (3) - A mathematical approach to codes and ciphers. Includes security codes, coding for efficiency in computer storage, error-correcting codes. Signal processing, including the Fourier transform and digital filters. Individual projects required. Prerequisites: 53.126 and 56.116 or 56.122.
- 53.373 Numerical Methods in Computing (Fall) (3) - Analysis and application of various methods of numerically solving problems in the areas of nonlinear equations; systems of equations, interpolation and polynomial approximation; numerical integration; approximation theory; and differential equations. Students design and execute algorithms on the computer for specific numerical procedures. Prerequisites: 56.116 or 56.121 and 53.126.
- 53.374 Introduction to Discrete Systems Simulation (Spring/odd-numbered years) (3) - Studies the ways that systems can be modeled for computer solution. Emphasizes stochastic behavior by discrete random processes and the simulation tools for their solution. Prerequisites: One course each in calculus, programming and statistics.
- 53.381 Introduction to Operations Research (Fall/odd-numbered years) (3) - A survey of the methods and models used in applying mathematics to problems of business. Topics drawn from decision making, linear and dynamic programming, networks, inventory models, Markov processes and queuing theory. Prerequisites: 53.118 and 53.123 or 53.225.
- 53.411 Introduction to Group Theory (3) - Continued and advanced study of theorems and applications of group theory begun in abstract algebra. Prerequisite: 53.310.

- 53.421, 53.521 Advanced Calculus (3) - Presents a rigorous treatment of the study of functions of a single real variable. Topics include limit, continuity, derivative and integration. Some topics for multivariable calculus include partial differentiation and multiple integration. Prerequisites: Analysis IV, Permission of Instructor.
- 53.422 Complex Variables (3) - A rigorous treatment of complex numbers and an introduction to the theory of functions of a complex variable. Central topics are the complex number system, analytic functions, harmonic functions and conformal mappings. Additional topics may include power series, contour integration, Cauchy's formula and applications. Prerequisites: 53.226, consent of instructor.
- 53.451 Introduction to Topology (3) - Introduces fundamentals of general topology; elementary set theory, topological spaces, mappings, connectedness, compactness, completeness, product and metric spaces; nets and convergence. Prerequisites: 53.226, consent of instructor.
- 53.461, 53.561 Probability Models and Applications (3) - An introduction to the concepts and methods of probabilistic modeling for random trials and occurrences. It covers classical models, poisson processes, Markov chains, Renewal and Branching processes and their applications to various phenomena in engineering, management, physical and social sciences. Prerequisite: 53.241.
- 53.462 Introduction to Mathematical Statistics (Fall, even-numbered years) (3) - An introductory study of mathematical statistics including distributions of functions of random variables, interval estimation, statistical hypotheses, analysis of variance and the multivariate normal distribution. Prerequisite: 53.241.
- 53.471 Numerical Analysis (3) - Provides a computer-oriented analysis of algorithms of numerical analysis. Includes the topics of non-linear equations, interpolation and approximation, differentiation and integration, matrices and differential equations. Prerequisites: 53.322 and 53.373.
- 53.472 Matrix Computation (Spring/odd numbered years) (3) - Presents a computer-oriented analysis of matrices. Includes Gaussian reduction, LDU factorization, special reduction techniques for tridiagonal matrices, iterative methods and a study of the matrix eigenvalue problem. Prerequisites: 53.225 and 53.373.
- 53.491 Special Topics in Mathematics (3) - Presents an area of mathematics which is not available as a regular course offering. Prerequisite: Consent of the instructor.
- 53.492 Independent Study in Mathematics (1-3) - Provides for directed study of a particular area of mathematics as mutually agreed upon by the student and the instructor. Emphasizes individual scholarly activity of the highly motivated student.

- 53.493 Honors in Independent Study in Mathematics (3) - For students who have demonstrated a high level of interest and ability in mathematics and have mastered the required course work. Students investigate research problems selected under the supervision of a faculty member of the Department of Mathematics and Computer Science. Prerequisite: Admission to the Honors Program in natural sciences and mathematics.
- 53.497 Internship in Mathematics (2-12) - Provides mathematics majors with an opportunity to acquire meaningful and professional on-site training and learning experiences in mathematics at an industrial, private or business workplace. Note: a student may, with departmental approval, apply a maximum of 3 credits of internship toward the fulfillment of the mathematics major. Each academic credit requires 40 hours of supervised work and the limit is 12 total semester hours for internships. Prerequisites: students must establish adequate course preparation for the proposed internship. Internship applications must be submitted one month before the internship begins and must be approved by the department chairperson.

PHY (54) Physics

Administered by Department of Physics.

- 54.101 Basic Physical Science (3) - An introductory integration of concepts and principles from chemistry, physics and astronomy, with consideration for the nature of scientific thought and the interaction of science with human and community concerns. For nonscientists.
- 54.103 Principles of Physical Science (3) - An integrated physical science course emphasizing laboratory experience. Provides an introduction to the basic concepts of physical science by studying such topics as the structure and properties of matter, motion and forces, energy, light and sound, electricity and magnetism and astronomy. For elementary and special education majors. Four hours class/laboratory per week.
- 54.104 Elementary Electronics (3) - An introduction to basic electronics that gives students in nonphysical science areas some theoretical and practical knowledge of electronic circuits, instruments and devices. No experience of physics or electronics required.
- 54.105 Energy: Sources and Environmental Effects (3) - Explains energy in elementary scientific terms and examines present national and international energy situations in regard to sources, utilization and environmental effects. Surveys fossil fuels and nuclear, solar, geothermal and other energies with respect to availability and promise for the future.
- 54.106 The Science of Sound (3) - Provides an introduction to the principles of sound and its reproduction for students in nonphysical science disciplines. Knowledge of basic algebra required, but no experience in physics or electronics necessary.

- 54.107 Applied Physics for Health Sciences (Spring) (4)** - Studies selected principles of physics with applications to the processes and instrumentation of medical technology. Examines mechanics, fluids, kinetic energy and heat, optics, electricity and magnetism, electronics, atomic structure, radiation and data acquisition and readout. Six hours per week: 3 classes, 3 laboratories.
- 54.110 Introduction to Astronomy (3)** - Surveys the physical state of the universe and the variety of objects it comprises: solar system, stars and galaxies. Provides a descriptive account of the present state of our knowledge of the cosmos and an understanding of how such knowledge is obtained. Intended for nonscience majors.
- 54.111 Introductory Physics I (Fall) (4)** - Presents an approach to selected topics such as mechanics, heat, kinetic theory, molecular theory of gases, wave motion and sound. Not intended for students specializing in physics or chemistry. Six hours per week: 3 classes, 3 laboratories.
- 54.112 Introductory Physics II (Spring) (4)** - Studies electricity, magnetism, light, relativity, quantum and atomic theory, structure of matter, nuclear physics and particle physics. Continuation of 54.111. Six hours per week: 3 classes, 3 laboratories. Prerequisite: 54.111 or consent of instructor.
- 54.180 Computer-Aided Design and Engineering Graphics (3)** - Course provides hands-on introduction to computer aided design (CAD) with an emphasis on basic engineering graphics. Culmination of the course is a team design and construction project.
- 54.210 Observational Astronomy (Spring) (3)** - Provides hands-on experience in observations of the night sky. Focuses on the interpretation of astronomical measurements, including the students' own telescopic observations of stars, planets, nebulae and other objects. Open to non-science majors. Prerequisite: 54.110 or consent of instructor.
- 54.211 General Physics I (4)** - An introduction to physics using calculus. Studies mechanics, the physics of fluids, kinetic theory, heat and thermodynamics. Appropriate for physical science or mathematics majors. Six hours per week: 3 classes, 3 laboratories. Prerequisite: 53.125 or concurrent registration.
- 54.212 General Physics II (4)** - Studies wave motion, sound, geometrical and physical optics, electricity and magnetism. Continuation of 54.211. Six hours per week: 3 classes, 3 laboratories. Prerequisites: 53.126 or concurrent registration; 54.211 or 54.111 with consent of instructor.
- 54.301 Mechanics: Statics (Fall/alternate years) (3)** - Introduces the fundamentals of statics, with an emphasis on vector methods, at a level appropriate for physical science majors and for students considering a career in the engineering field. Prerequisites: 53.126 or concurrent registration; 54.211 or 54.111 with consent of instructor.
- 54.302 Mechanics: Dynamics (Spring/alternate years) (3)** - Introduces the fundamentals of dynamics, with an emphasis on vector methods, at a level appropriate for physical science majors and for students considering a career in an engineering field. Prerequisites: 53.225 or concurrent registration; 54.212 or 54.112 with consent of the instructor.
- 54.310 Modern Atomic Physics (Fall) (3)** - Presents some of the basic concepts and phenomena that constitute modern physics, including studies of the quantum nature of radiation, atomic structure and spectra, X-rays, relativity, wave-particle duality, the uncertainty principle and a brief introduction to nuclear physics and radioactivity. Prerequisite: 54.212 or 54.112 with consent of instructor, 53.126.
- 54.314 Electricity and Magnetism (Alternate years) (3)** - Studies electric and magnetic fields and potentials, electric and magnetic properties of matter, electrodynamics and electromagnetic waves. Prerequisites: 54.212 or 54.112 with consent of instructor, 53.225.
- 54.315 Electronics (Alternate years) (4)** - Presents the theory and application of semiconductors with special emphasis on circuitry. Studies basic electronic instrumentation as related to the gathering, processing and display of scientific data in any discipline. Six hours per week: 3 classes, 3 laboratories. Prerequisite: 54.112 or 54.212.
- 54.316 Digital Electronics (Alternate years) (3)** - An introduction to the techniques and devices of digital electronics. Includes practical experience of the building and testing of digital circuits. Supplies the background necessary for the understanding of microprocessors and computer circuits. Prerequisite: junior standing or consent of instructor.
- 54.317 Computer Electronics (Alternate years) (3)** - An introduction to the electronics and operation of digital computers. Intended for students with a background in digital circuitry. Includes practical experience of the operation and interfacing of microprocessors and other devices. Prerequisite: 54.316 or consent of instructor.
- 54.318 Optics (Alternate years) (4)** - Presents a combination of geometrical optics including lens theory with physical (wave) optics including diffraction, interference, polarization, lasers and coherent light. Six hours per week - 3 classes, 3 laboratory. Prerequisite: 54.212 or 54.112 with consent of the instructor.

- 54.320 Nuclear Radiation I (Alternate years) (2) - Presents a laboratory-oriented course using modern nuclear electronics and detectors for measuring and analyzing nuclear radiation. Four hours per week: one class, 3 laboratories. Prerequisite: 54.310 or concurrent registration.
- 54.330 Radiation Physics (Alternate years) (3) - Presents properties and models of nuclei, radioactive decay, radiation and its interaction with matter and nuclear applications. Prerequisite: 54.310 or concurrent registration.
- 54.341 Astrophysics: Galaxies and Cosmology (3) - Focuses on objects outside of our own galaxy, discusses emission mechanisms from other types of galaxies including normal spirals, seyferts and quasars. Structure of the universe as a whole is described using various cosmological models. Prerequisites: 53.126 and 54.112 or 54.212.
- 54.360 Health Physics (Alternate years) (3) - Presents a study of the principles of health physics, including biological effects of radiation, dosimetry, radiation measurement and radiation protection. Prerequisite: 54.310 or concurrent registration.
- 54.400 Advanced Physics Laboratory (Alternate years) (2) - Presents the basic tenets of lab work in physics, involving considerations of experimental error, proper research and preparation of an experiment. Includes experiments primarily from the areas of atomic physics, electricity, magnetism and optics. Four hours per week: one class, 3 laboratories. Prerequisites: 54.310.
- 54.420 Nuclear Radiation II (Alternate years) (2) - A laboratory course which presents advanced techniques of nuclear measurement and includes applications involving environment monitoring and health physics. Four hours per week: one class, three laboratories. Prerequisite: 54.320 or consent of instructor.
- 54.421 Solid State Physics (3) - Examines physical properties of matter in the solid state. Reviews basic quantum concepts, crystal structure, electrons in metals, electrical conductivity, semiconductors, band theory and the p-n junction. Studies dielectric and magnetic properties of matter. Three hours of class per week. Prerequisite: 54.310, 54.314; Mathematics 53.225.
- 54.422 Thermodynamics (3) - Presents concepts and principles of classical thermodynamics, thermodynamics of simple systems, introduction to kinetic theory and statistical thermodynamics. Three hours of class per week. Prerequisite: 54.212 or 54.112 with consent of instructor; Mathematics 53.225.
- 54.450 Introduction to Quantum Mechanics (3) - Examines the development and interpretation of Schrodinger's wave mechanics, its mathematical formalism and the results and predictions of this quantum theory as applied to one-dimensional systems, the hydrogen atom and multi-electron atoms. Three hours class per week. Prerequisite: 54.310; Mathematics 53.225.
- 54.460 Applied Health Physics (Alternate years) (3) - Presents advanced topics involving health physics principles and radiation protection standards as applied to science, industry and medicine. Prerequisite: 54.360 or consent of instructor.
- 54.490 Seminar in Physics (1) - A selected topic in physics is studied and prepared in a form suitable for presentation. Student attends and participates in physics seminars and makes a presentation in the same semester of enrollment in the course.
- 54.491 Independent Study in Physics (1-3) - Investigates an area of special interest and value to the student, under the direction of a faculty member, following a plan approved in advance by the department chairperson. May be partly interdisciplinary and may involve limited experimental work.
- 54.493 Independent Research (1-3) - Provides for an application of theoretical and/or experimental research methods to a special problem. May be interdisciplinary. Requires the preparation of a report and a plan, approved in advance by the department chairperson, which is acceptable to the student and the supervising faculty member.
- 54.494 Honors Independent Study in Physics (3) - Provides the qualified student with an opportunity to participate in an advanced experimental or theoretical investigation of a current problem in physics, under the supervision of a physics faculty member having expertise in the student's proposed research area.

MRS (55) Marine Science

Administered by Department of Biological and Allied Health Sciences and Department of Geography and Earth Science.

Marine Science Courses are offered during the summer at the Marine Science Center in Wallops Island, Virginia. Bloomsburg University and other institutions are members of the consortium that operates the center. Courses are offered which satisfy requirements for biology majors, for earth science majors and for general education. Specific courses satisfy requirements for the Marine Biology Option in Biology. Other courses provide earth science majors experiences which are not available on the main campus. For more information, contact the Marine Science coordinators in the Departments of Biological and Allied Health Sciences and Geography and Earth Sciences.

55.110 Introduction to Oceanography (3) - An introduction to the marine sciences with an emphasis on physiography of ocean basins, wave motion, tides, current circulation patterns, near-shore processes, physical and chemical nature of sea-water and methods of investigation.

- 55.211 Field Methods in Oceanography (3)** - Familiarizes students with the dynamic marine environment and with work on board a research vessel. Introduces the use and application of standard oceanographic instruments and sampling devices. Independent research is promoted and encouraged. Prerequisite: 51.259 or 55.110.
- 55.221 Marine Invertebrates (3)** - A study of the life, history, habits origin, development, physiology, anatomy and taxonomy of the main phyla of invertebrates. A phylogenetic sequence is followed to show interrelationships among the phyla. Special emphasis is given to the Atlantic marine invertebrates. Laboratory and field work deal with collection, preservation and identification of local species. Prerequisite: 50.110, 50.120 or consent of the instructor.
- 55.241 Marine Biology (3)** - A study of plant and animal life in the marine environment. Emphasis on physical and chemical environmental factors affecting the biota in the intertidal, open water and benthic habitats. Common biota characteristics of each habitat will be investigated in terms of their natural history, morphology and ecological relationships. Prerequisite: 50.110, 50.120 or consent of the instructor.
- 55.250 Wetlands Ecology (3)** - Biological, chemical and geological characteristics of coastal wetlands. Considers the structure and function of wetlands, human impacts on wetlands and approaches for wetland management and restoration. Laboratory consists of field exercises in the study of wetlands. Prerequisite: 50.110, 50.120.
- 55.260 Marine Ecology (3)** - Interrelationships among animals, plants and physical and chemical aspects of the environment studied, with stress on adaptations for survival that are unique to the marine environment.
- 55.270 SCUBA Diving (3)** - Basic SCUBA diving coupled with advanced techniques. Leads to open-water certification. Prerequisite: Swimming Proficiency and physicians certification of fitness for SCUBA are required.
- 55.300 Behavior of Marine Organisms (3)** - Concepts of ethology; discussion and observation of the influence of external and internal factors on the regulation; and control of behavior of organisms living in the marine coastal environment. Prerequisite: 50.110.
- 55.320 Marine Microbiology (3)** - A survey of methods and concepts of marine microbiology. Focus on the technical aspects of sample collection, microbial ecology of the marine environment, enrichment culturing and methods of enumeration and identification with emphasis on marine bacteria. Prerequisite: 50.110, 50.120.
- 55.330 Tropical Invertebrates (3)** - Introduction to tropical invertebrates, using a variety of collection and observation methods to sample nearshore and reef areas. Emphasis on systematics and ecology using the communities approach. One week at Wallops Island, Va., for intensive review of general systematics and ecology of marine invertebrates; then two weeks in Florida sampling and identifying species and describing ecological communities. Course is a sequel to marine invertebrates or a landlocked invertebrate zoology course or a thorough landlocked zoology course. Prerequisites: 55.221 or 50.211.
- 55.331 Chemical Oceanography (3)** - A field-based study of ocean, bay and estuarine environmental chemistry. Develops and awareness of the relationships between chemical, geological and biological environments. Investigates the chemical compositions of waters and substrata and biogeochemical processes and cycles. Prerequisite: 52.215.
- 55.342 Marine Botany (3)** - Taxonomy, physiology, ecology and economic importance of marine and coastal plants as exemplified by those found on the Delmarva Peninsula. Laboratory techniques include collecting, preserving, identifying and analyzing plants and plant materials, appropriate instrumentation to be used. Emphasis on in-the-field studies and laboratory analyses. Prerequisite: 50.110, 50.120.
- 55.343 Marine Ichthyology (3)** - A study of the internal and external structure of fishes, their systematic and ecological relationships and their distribution in time and space. Prerequisite: 50.110, 50.120.
- 55.345 Ornithology (3)** - Introduces avian fauna of the sea coast and enables comparison with inland species. Field work provides visual and vocal identification; lecture material includes information on distribution, behavior, physiology and anatomy of birds. Prerequisite: 50.110, 50.120.
- 55.362 Marine Geology (3)** - Structure and sedimentology of ocean basins and shores. Presents methods of geological exploration in the marine environment, features of ocean basins and theories of ocean basin evolution. Prerequisite: 51.101, 51.102, 51.111, 51.112 and 51.259 or 55.110.
- 55.364 Physical Oceanography (3)** - A study of the physical properties of the oceans including: mass and energy budgets; theory of the distribution of variables; cause, nature, measurement, analysis and prediction of tides, currents and waves; and basic instrumentation in field work. Prerequisite: 51.259 or 55.110 or 53.125 and 54.112 or permission of instructor.

- 55.394 Comparative Physiology of Marine Organisms (3)** - This course will provide an introduction to the physiology of marine organisms utilizing a comparative approach. The lecture will introduce the topics of respiration, circulation, metabolism, osmoregulation, thermoregulation, locomotion and sensory systems by drawing comparisons between the mechanisms and strategies utilized by a wide range of marine organisms. Laboratory and field work will focus on the physiological responses of marine plants and animals to common environmental stresses such as salt load, temperature variation, depletion of dissolved oxygen and tidal flux. This will be accomplished through measurements and observations in the field, as well as through experimental manipulations in a laboratory setting. Prerequisite: 50.110, 52.115, 52.131, 55.241 or permission of instructor.
- 55.430 Coastal Sedimentation (3)** - A study of depositional environments of marine dominated shorelines, sediments, sedimentation processes, sedimentary facies, models of rock record growth, barrier island dynamics and development of tidal deltas. 51.101, 51.102, 51.111, 51.112 or permission of instructor.
- 55.431 Ecology of Marine Plankton (3)** - Studies phytoplankton and zooplankton in marine and brackish environments. Qualitative and quantitative comparisons made between the plankton populations of various types of habitats in relation to primary and secondary productivity. Prerequisites: 50.110, 50.120.
- 55.432 Marine Evolutionary Ecology (3)** - The study of the ecological mechanisms underlying evolutionary processes. This course is broad in scope and requires that students synthesize both evolutionary and ecological concepts and theory into an understanding of how organisms adapt to their environment. Marine, estuarine and maritime organisms are used as model systems and processes which affect marine populations are emphasized.
- 55.441 Biology of Molluscs (3)** - An evolutionary, functional and ecologic approach to studying the second largest group of animals and perhaps the most diverse in terms of morphological, ecological and behavioral variations. Prerequisites: 50.110, 50.211 recommended.
- 55.459 Coastal Geomorphology (3)** - Study of coastal geomorphology with an emphasis on Late Cenozoic and Pleistocene sea and lake-level changes in response to world-wide glaciation. Students participate in field studies of Pleistocene deposits and the weathering and erosion of these deposits. Prerequisite: 51.101, 51.102, 51.111, 51.112 .
- 55.464 Biological Oceanography (3)** - Interdisciplinary study of the interactions between biological communities and the ocean environment as seen by distributions of coastal plankton, fish and benthic invertebrates. Projects involve boat trips to sample populations and to quantitatively document environmental variables with state-of-the-art equipment, laboratory and field experiments to determine rate processes and visits to nearby field and government laboratories. Examples of project topics include transport of plankton at barrier island passes, effect of submarine banks on fish populations, ground truth data for satellite imagery and other current topics in biological oceanography. Prerequisite: 50.110, 50.120, 50.242. Recommended: 51.259 or 55.110.
- 55.470 Research Diver Methods (3)** - Study and practice of aquatic research methods using SCUBA as a tool. Advanced research diving topics include areas such as navigation, search and recovery, underwater photography, survey methods, estimating population parameters and data acquisition while under water. Specific research techniques will be presented in the context of specific aquatic research projects conducted by students under the direction of the instructor. Prerequisite: 50.110 and Basic SCUBA Certification (NAUI, PADI, SSI).
- 55.490 Marine Aquaculture (3)** - This course includes the theory and practice of raising organisms for food and for the aquarium trade. Techniques of raising economically important organisms from the egg stage to marketable size and their food supplies are studied.
- 55.491 Coral Reef Ecology (3)** - A study of coral reef structure, formation, types and the relationships of reef organisms to their environment. Emphasis is given to species diversity, identification, symbiosis and effects of temperature, salinity, light, nutrient concentration, predation and competition on the abundance and the distribution of coral reef organisms. Prerequisite: 50.110, 50.120 and SCUBA and/or snorkeling experience.
- 55.492 Marine Mammals (3)** - A study of the distribution, population ecology, behavior, physiology and adaptations of marine mammals. Student projects entail collecting physiological and behavioral data at field sites and at facilities studying marine mammals. Prerequisite: 50.110, 50.120, 50.212 or 50.361 recommended; preferences given to undergraduate senior students in registering.

CPS (56) Computer Science

Administered by Department of Mathematics, Computer Science and Statistics.

- 56.110 Introduction to Computer Science (3) - Presents an introduction to computers and data processing - what they are, how they function, how they are controlled and how they are used in problem solving. Basic concepts include hardware, I/O systems, data communication and storage, flow charting and programming in BASIC on a microcomputer. Hands on experience with word processing, spreadsheets and data base software is required. Not appropriate and credit for 56.110 will not be given to a student who has taken Computer and Information Systems 92.150.
- 56.116 Algorithmic Processes for Computers (3) - Emphasizes concepts of FORTRAN 77; input and output, program documentation and control, structured programming, extended modes of arithmetic, character strings and program development and execution. May not be used toward the Computer Science major. Prerequisite: Programming experience or consent of the instructor.
- 56.121 Computer Science I (4) - A programming course for students with no prior programming experience. Teaches students how to write programs to solve problems using C++ language. Problem solving methods are presented and some basic object-oriented programming design issues are discussed. Students given extensive "hands-on" experience with guidance from the instructor Prerequisite: 56.110 or the equivalent.
- 56.122 Computer Science II (4) - A continuation of Computer Science I. Emphasizes software engineering principles in the context of programming. Elementary program performance analysis is performed. Class covers searching and sorting algorithms. Pointers and dynamic structures: linked lists, stacks, queues and binary trees will also be studied. Advanced object oriented design methodologies and recursion will be introduced. Prerequisite: 56.121.
- 56.221 Computer Science III (4) - Increases the students breadth and flexibility as a programmer and is a prerequisite for most 300 and 400 level courses in computer science. Covers C and C++ languages as well as editing, compiling and debugging in a Unix environment. Introduces nonlinear data structures and hashing and emphasizes object oriented programming and design. Prerequisite: 56.122.
- 56.240 Assembly Language Programming (Spring) (3) - Advanced topics in programming with a microcomputer, introductory concepts of microcomputer architecture, operating systems and machine and assembly language for microprocessors. Prerequisite: 56.122.
- 56.250 Programming Language Paradigms (3) (Spring) - Gives an introduction to the functional, logical and object oriented programming language paradigms. Entering students should already have at least one year of experience with a block structured procedural language. Course gives students a better understanding of programming languages in general and will specifically lead to an understanding of how to use a specific language from three different programming language paradigms to solve programming problems. Prerequisite: 56.122 or equivalent.
- 56.305 Computer Applications in Secondary School Mathematics (Spring/odd-numbered years) (3) - Studies the theory, design and usage of a computer as an instructional or training tool. Uses microcomputer to demonstrate and develop software applications. Prerequisite: 56.121.
- 56.323 Artificial Intelligence (3) (Fall, even numbered years) - Provides an understanding of the philosophy, content, methods, successes and failures of artificial intelligence. Course includes history of artificial intelligence, knowledge representation, game playing, expert systems, logic and theorem proving, search strategies, natural language processing, neural networks, genetic algorithms and problem solving. Prerequisite: 56.250.
- 56.330 Digital Design (Spring) (3) - Design of combinational and sequential circuits. Coding, various instruction formats and representation of data. Memory, central processors, input-output devices. Introduction to computer architecture. Characteristics and features of some existing computer systems. Prerequisites: 56.122, 53.185.
- 56.350 Organization of Programming Languages (Fall) (3) - An introduction to the issues of programming languages: syntax, semantics, parsing, language specification and analysis. Emphasis on the run-time behavior of programming language constructs. Prerequisite: 56.250.
- 56.355 Analysis of Algorithms and Data Structures (Spring) (3) - A detailed analysis of algorithms and data structures. Examination of theoretical and experimental performance of algorithms and data structures. Particular attention to algorithms for searching and sorting and techniques for implementing and manipulating various data structures: stacks, queues, trees, graphs and files. Prerequisites: 56.221, 53.185, 53.126.
- 56.356 Windows Programming (Spring/even-numbered years) (3) - Introduces object oriented programming including the concepts of objects, windows environment, inheritance, encapsulation, polymorphism and event driven programming. Participation in the development of a large scale application project is required. Prerequisite: 56.221 or 56.250.

- 56.357 Principles of Database Design (Fall, even-numbered years) (3)** - Considers the principal functions of a database management system. Basic concepts used by all database models will be taught. Details of the hierarchical, network and relational database models will be studied in detail. Course examines query languages in general and uses a data manipulation language (DML) and studies its applications. Students implement a relational database management system that involves execution of operations such as an intersection, union, difference, join and multijoins of relations. Study of a commercially available DML prepares students for a career dealing with database systems. Prerequisite: 56.221.
- 56.373 Numerical Methods in Computing (Fall) (3)** - An analysis and application of various methods of numerically solving problems in the areas of nonlinear equations; systems of equations, interpolation and polynomial approximation; numerical integration; approximation theory; and differential equations. Students use a computer to design and execute algorithms for specific numerical procedures. Prerequisites: 56.121 or 56.116, 53.126.
- 56.375 Local Area Networks (3) (Fall, odd-numbered years)** - Examines in detail key local area network standards and the fundamental concepts of local area network (LAN) technology. Provides an understanding of network architecture, data transmission methods and major LANs currently in use. Investigation of LAN protocols, topologies and network operating systems includes hands on experience in installing and demonstrating peer-to-peer and client-server LANs. Prerequisite: 56.330.
- 56.386 Concurrent Programming and Foundations of Operating Systems (3) (Fall)** - Studies the foundation of modern operating systems and concurrent programming problems associated with these systems. Students write and test their solutions to problems. Covers problems and possible solutions encountered in the development of all modern systems. Prerequisite: 56.221.
- 56.410 Computer Graphics (Spring/even-numbered years) (3)** - Presents the basic principles for design, use and understanding of graphics systems. Hardware and software components of graphics systems examined with a major emphasis on creating and manipulating graphics displays using a software graphics package; the package includes standard computer graphics algorithms. Two and three dimensional graphics, animation, color, hidden line and hidden surface algorithms studied in depth. Prerequisites: 56.221 and 53.225.
- 56.430 Computer Architecture (Spring/ odd-numbered years)(3)** - Examines design issues for modern, high-performance computer systems. Topics include bus structures, memory hierarchies, RISC and CISC instruction-set paradigms, pipelining and superscalar processor designs, microprogrammed control and input/output and bandwidth issues. Prerequisite: 56.330.
- 56.444 Introduction to Parallel Processing (Fall/odd-numbered years)(3)** - Provides an overview of parallel processing, parallel architectures, design and analysis of parallel algorithms. Focuses on the development and performance evaluation of parallel algorithms on parallel architectures. Prerequisite: 56.221.
- 56.450 Compiler Construction (Spring/odd-numbered years) (3)** - An introduction to the construction of compilers and interpreters. The compiler is broken down into phases of scanning, parsing, semantic analysis, optimization and code generation. Studies the relevant theory in the phases as students program a compiler. Prerequisites: 56.350 and 56.221.
- 56.471 Numerical Analysis (Alternate years) (3)** - Provides a computer-oriented analysis of algorithms of numerical analysis. Topics include nonlinear equations, interpolation and approximation, differentiation and integration, matrices and differential equations. Prerequisites: 56.373, 53.322.
- 56.491 Special Topics in Computer Science (3)** - Presents an area of computer science which is not available as a regular course offering. Prerequisite: Consent of the instructor.
- 56.497 Internship in Computer Science (2-12)** - Provides computer science majors with an opportunity to acquire meaningful and professional on-site training and learning in computer science at an industrial, private or business workplace. Note: a student may, with departmental approval, apply a maximum of 3 credits of internship toward the fulfillment of the computer science major. Each 1 academic credit requires 40 hours of supervised work and the limit is 12 total credit hours for internships. Prerequisites: students must establish adequate course preparation for the proposed internship. Internship applications must be submitted one month before the internship begins and must be approved by the department chairperson.
- 59.498 Natural Sciences and Mathematics Internship (1-9)** - Internship provides on-site work experience and training program to give selected intern an opportunity to apply the theoretical and descriptive knowledge acquired in multiple natural sciences and mathematics disciplines. Requires approval of the internship coordinator and the dean of Arts and Sciences.

EDF (60) Educational Studies

Administered by Department of Educational Studies and Secondary Education.

- 60.201 Field Studies in Education I (1) - Fifteen hour field experience to observe various teaching-learning situations. Weekly on-campus seminars.
- 60.204 Educational Computing and Technology (3) - Introduction to computer technology and the school setting that utilizes computers. Prerequisite: 45 semester hours.
- 60.205 Career Development and Life Planning (3) - Provides students with career information, values clarification and decision-making skills needed to develop sensitivity to these issues in light of the increasing complexity of the occupational experience.
- 60.251 Psychological Foundations of Education (3) - A systematic analysis of theories of human motivation, development and learning related to the teaching-learning process. Psychological systems are compared and evaluated in terms of their philosophical bases, ideological commitments and as criteria for the development of models for educational policy and practice.
- 60.291 Principles of Teaching (3) - An introduction to the teaching process. Various instructional techniques, methodologies and approaches are explored. Topics include: developing instructional objectives, sequencing learning activities, applying the various taxonomies, conducting micro-teaching, discipline strategies, questioning techniques and mastery teaching. Class term project includes unit lesson plan and evaluative instrument. Prerequisites: 60.201, 60.251.
- 60.301 Field Studies in Education II (1) - Thirty hour field experience with involvement in a school setting. Develop lesson plans and teach two lessons under supervision. Produce reflective journal. Remaining time spent in weekly campus class seminars.
- 60.302 Research Literacy (3) - Provides an introduction to research methods and techniques. Gives the student the basic understanding to be a better consumer of research, to be more aware of the value of research and to be able to carry out beginning-level research projects.
- 60.311 Classroom Measures and Assessment (3) - Reviews principles of evaluation; grading; representative standardized tests; vocabulary of measurement, test construction and interpretation; informal and formal measurement in the cognitive, affective and psychomotor areas and alternative forms of assessment. Prerequisite: 45 semester hours, 60.291.

60.393 Social Foundations of Education (3) - An integrated multidisciplinary study of education focusing on the relationships among social conditions, social values and educational policies. The course focuses on those aspects and problems of society that need to be taken into account in determining educational policy, especially as this policy concerns the social role of the school.

60.406 Multicultural Education (3) - Studies school situations that reflect the cultural diversity of the nation and the world in their social and school goals and curricular and instructional aims and practices. Offers strategies for accommodating to the cultural norms, values, attitudes, behavior, language and learning styles of students and for teaching all students to understand and respect their own and other cultures.

60.427 Classroom Management and Effective Discipline (3) - Focus on strategies for effective discipline and classroom management. Methods of planning for the beginning of the year and for establishing an effective classroom atmosphere that promotes learning throughout the year are reviewed. Current models and major theories of discipline are reviewed and evaluated. Prerequisites: 60.251, 60.291, 60.201, 60.301 .

60.431 Independent Study (1-3) - Requires consent of the department chairperson to schedule.

60.441, 60.442, 60.443 Workshop in Education (1-6) - Studies selected areas of education including research by individual students in a special teaching field.

60.451 Pupil Personnel Services in the Public School (3) - Comprehensive view of pupil personnel services in elementary and secondary schools; school attendance, school health programs, pupil transportation, psychological services, guidance services.

60.497 Teaching in Education: First Experience (6) - The secondary student teaching assignment is determined by the student's area of specialization. Provides opportunities for direct participating experiences. Places students in classrooms with public or private school teachers. The student's major determines their assignment: K-6 - one experience in a primary level and one experience in an intermediate level of a public school; N-K-3 - one experience in a preschool situation and one in a primary level of a public school or two experiences in a primary level of a public school.

60.498 Teaching in Education: Second Experience (6) - The secondary student teaching assignment is determined by the student's area of specialization.

ELE (62) Early Childhood and Elementary Education

Administered by Department of Early Childhood and Elementary Education.

- 62.121 Introduction to Early Childhood Education (3) - Examines the historical and philosophical foundations of early childhood education. Analyzes current trends and practices for teaching children from birth to age 6.
- 62.302 Teaching of Science in the Elementary School (3) - Emphasizes the major methods and materials used in elementary school science. Prerequisite: 64 semester hours.
- 62.304 Environmental Education for the Elementary School Teacher (3) - Provides learning experiences for the elementary school level in environmental education programs.
- 62.310 Teaching Fine Arts in the Elementary School (3) - Provides competencies in the selection and implementation of materials and procedures for teaching literary, visual and performing arts to elementary school children. Emphasizes comprehension and integration of fine arts into all areas of the school curriculum. Prerequisite: 45 semester hours.
- 62.322 Seminar in Learning Experiences with Young Children (3) - Outlines physical, mental, emotional and social levels of children from birth to age 8, with attention to environmental factors that foster child growth. Examines prenatal, infant-toddler, preschool and kindergarten programs to meet the needs of this age child and to provide the background of experience needed for later ventures into reading, art, arithmetic, science, social studies, music, literature, physical education and health and safety. Prerequisites: Psychology 48.101, 48.211.
- 62.371 Teaching Reading in the Elementary School (3) - Examines developmental reading from readiness through sixth grade. Prerequisite: 45 semester hours.
- 62.373 Diagnostic and Inclusionary Practices (3) - Presents diagnostic and remedial procedures emphasizing both standardized and informal techniques. Prerequisite: 62.371.
- 62.376 Language Experiences for Children (3) - Explores the language development of children and factors that influence skill in effective communication development from nursery school through sixth grade. Provides a background for students in language arts and literature for children. Prerequisite: 45 semester hours.
- 62.389 Individualized Instruction Activities in the Elementary School (3) - Emphasizes procedures for helping individuals learn the informal school concept and rearranging the elementary classroom into an efficient and effective learning area with emphasis on a language arts center, mathematics center, science centers and social studies centers. Prerequisite: 45 semester hours.
- 62.390 Teaching Social Studies in the Elementary School (3) - Emphasizes methods and materials appropriate for teaching elementary school social studies in contemporary society. Prerequisite: 64 semester hours.
- 62.391 Teaching Language Arts in the Elementary School (3) - Emphasizes methods and materials designed to help elementary school children develop communication skills for today's complex society. Includes all areas of a modern language arts curriculum. Prerequisite: 64 semester hours.
- 62.398 Teaching Mathematics in the Elementary School (3) - Outlines mathematical methods, materials, understandings and attitudes essential in the teaching of contemporary programs in the elementary school. Prerequisite: 64 semester hours.
- 62.400 Workshop in Teaching Mathematics in Early Childhood and Elementary Education (1-6) - Presents a workshop format to provide individual or group study of problems concerned with teaching mathematics at early childhood and elementary levels.
- 62.410 Methods and Materials in Early Childhood Education I (3) - Provides teachers with a workshop experience in infant daycare centers and nursery schools. Provides methods and materials that teachers can use and construct in their centers and classrooms. Examines theories of Bruner, Piaget, Froebel and Montessori. Prerequisites: 62.121, 62.322.
- 62.420 Methods and Materials in Early Childhood Education II (3) - Provides teachers with a workshop experience in infant daycare centers and nursery schools. Provides methods and materials that teachers can use and construct in their centers and classrooms. Examines theories of Bruner, Piaget, Froebel and Montessori. Prerequisites: 62.121, 62.322.
- 62.431 Independent Study in Elementary and Early Childhood Education (1-3) - Individual projects in education. Requires consent of the department chairperson.
- 62.450 Methods of Teaching Foreign Languages in the Elementary School (3) - Examines factors influencing second language acquisition and addresses a variety of strategies designed to teach foreign languages in the elementary school. Special focus on integrating the foreign language syllabus within the elementary school curriculum. Culture, art, music and dance included. Prerequisites: 60.291, 200-level foreign language or equivalent.

TCH (65) Secondary Education

Administered by Department of Educational Studies.

- 65.351 Teaching Communication in the Secondary School (Fall) (3) - Prerequisites: 60.201, 60.251, 60.291, 60.301, 60.393; junior standing in an area of concentration in secondary education.
- 65.352 Teaching Mathematics in the Secondary School (Spring) (3) - Prerequisites: 60.201, 60.251, 60.291, 60.301, 60.393; junior standing in an area of concentration in secondary education.
- 65.353 Teaching Science in the Secondary School (Fall) (3) - Prerequisites: 60.201, 60.251, 60.291, 60.301, 60.393; junior standing in an area of concentration in secondary education.
- 65.358 Teaching Foreign Language in the Secondary School (Spring) (3) - Prerequisites: 60.201, 60.251, 60.291, 60.301, 60.343, junior standing in an area of concentration in secondary education.
- 65.355 Teaching Social Studies in the Secondary School (Fall) (3) - Prerequisites: 60.201, 60.251, 60.291, 60.301, 60.393; junior standing in an area of concentration in secondary education.
- 65.374 Teaching Reading in Academic Subjects (3) - Understanding techniques for developing reading skills applicable to the secondary school. Emphasis on readiness, comprehension, silent reading and oral reading through secondary school academic subjects. Prerequisite: 45 semester hours.
- 65.411 Seminar in Secondary Education (3) - Activities center around concerns and problems encountered in secondary education. The range of activities is determined by individual need and by levels of professional competency including diagnosis, mutual development of objectives and self evaluation.
- 65.431 Independent Study in Secondary Education (1-3) - Requires consent of department chairperson 79.312 Internship in Education (1-15) - A work study program in an education-related setting applicable to fulfilling free electives in teacher education degree.

SPE (70) Special Education

Administered by Department of Exceptionalities.

- 70.101 Introduction to the Exceptional Individual (3) - Reviews all major areas of exceptionality (visually impaired, mentally retarded, hearing impaired, communication disorders, behavior disorders, learning disabilities) and acquaints the student with social, sociological, psychological, medical, historical, legal, economic and professional aspects of these conditions. Reviews current research and the latest techniques for facilitating meaningful interactions with these individuals.

- 70.202 Technology for Exceptionalities (3) - Provides the special education major with an introduction to technology as it is being applied to meet the needs of exceptional individuals and special education teachers. Computers, as well as other technological devices, are studied in relation to use as prosthetics, instructional tools, administrative tools and environmental interfaces.
- 70.206 Introduction to Early Intervention (3) - An overview of the field of early intervention (EI), including historical perspectives, philosophies of EI, influences of disabilities on the development of young children and early intervention models.
- 70.240 Foundations in Special Education (3) - An introduction to the history, causes and characteristics of mental retardation, physical disabilities and learning disabilities. A presentation of diagnostic materials and techniques as well as various approaches, programs and services will be given.
- 70.250 Behavior Disorders (3) - Deals with inappropriate behaviors emitted by children and youth and the techniques and strategies that may be used to modify these behaviors. Covers psychological disorders, research related to aggressive and withdrawn behavior and techniques and materials used in social curriculum. Examines group and individual problems at all school levels.
- 70.340 Educating Individuals with Moderate/Severe Disabilities (3) - Presents students with different theories and techniques used in the education of persons with moderate and severe disabilities. Students are also exposed to a variety of methods and materials used to educate persons with moderate and severe disabilities.
- 70.353 Assessment and Planning (3) - Provides information and experience with formal and informal assessment devices and procedures, their usages and appropriateness. Covers gathering information about the learner prior to instruction concerning appropriate instructional tasks, sensory channels, interest areas and social skills. Covers ways of developing informal assessments, gathering observational information, storing information and planning for instruction.
- 70.357 Vocational Programming (3) - Develop a philosophy of vocational education for persons with disabilities, acquire knowledge of programs and strategies to develop students' prevocational and vocational skills, learn information about and gain experience with curriculum materials and assessment procedures and develop strategies in transition planning.
- 70.375 Individual Project (3) - Project planned according to interests and needs of the individual student, in any of the following suggested areas: library research, curriculum study or internship in special aspects of educational programs.

- 70.401 Student Teaching With Exceptional Individuals (12) - Provides opportunities for the student to test educational theory by putting it into practice, opportunities to raise questions, problems and issues which may lead to advanced study and opportunities for effective functioning in a pupil-teacher relationship in an actual classroom setting. Prerequisite: Concurrent with 70.461.
- 70.407 Family-Centered and Inclusive Practices in Early Intervention (3) - Provides students with information, strategies and practical application of best practices in early intervention, specifically with regard to family-centered practices, communication and collaboration, observation and assessment, inclusion and adaptations. Prerequisite: 70.206.
- 70.408 Experiences in Early Intervention (1-6) - Provides students with the opportunity to apply theory, best practices and knowledge in early intervention environments with identified families and children, ages birth-6, with disabilities. Prerequisites: 70.206, 70.407.
- 70.433 Language Arts for Students with Special Needs (3) - Provides preservice teachers with a comprehensive overview of skills, assessment and strategies for teaching listening, speaking, reading and written expression. A holistic philosophy for teaching language arts is stressed. Students will prepare a portfolio of resources and best practices for teaching language arts to students with special needs.
- 70.450 Methods for Elementary Special Education (3) - Provides a summary of the learning characteristics and instructional needs of students with mild disabilities. Learning theory, effective teaching strategies, classroom management and interaction with parents, paraprofessionals and professionals will be discussed.
- 70.451 Methods for Secondary Special Education (3) - Familiarizes students with a variety of instructional techniques used to enhance the learning process of individuals with disabilities at the secondary level. Covers information pertaining to current issues in secondary special education and their impact on service delivery.
- 70.461 Problems in Special Education (3) - Presents instruction in the development of constructive teaching of exceptional individuals. Focuses on problems in the education of exceptional children. Discusses its relationship to teaching as each problem is defined. Helps the future teacher meet practical problems in guiding the exceptional individual in learning experiences at school. Prerequisite: Concurrent with 70.401.

- 70.496/70.497/70.498 Special Workshop I, II, III (1-6) - Temporary special workshop seminars designed to focus on contemporary trends, topics and problems in the field of special education. Lecturers, resource speakers, team teaching, field experience and practicum, new media and related techniques. Workshops usually are funded projects.

SPA (72(Speech Pathology and Audiology

Administered by Department of Audiology and Speech Pathology.

- 72.152 Introduction to Communication Disorders (3) - Presents an introduction to the study of human communication and communication disorders, the role of professionals in communication disorders, basic processes, functions and problems of human communication for children and adults.
- 72.200 Introduction to Audiology (3) - Introduces the causes, evaluation techniques and rehabilitative procedures for various types of hearing problems; related auditory, speech, psychological and educational factors; the roles of parent, educator and specialist in the rehabilitation program. Presents hearing conservation procedures used in schools and industry.
- 72.220 Phonetics (3) - Studies of the physiological, acoustical, perceptual and descriptive aspects of speech and sound production. Primary emphasis on description, classification and transcription of speech sounds. Provides a base of knowledge for diagnosis and treatment of phonetic and phonological disorders of communication.
- 72.240 Normal Language Acquisition (3) - Focuses on current information and theory regarding normal language acquisition.
- 72.300 Auditory Training and Speech Reading (3) - Presents current teaching methods for educating children and adults with moderate and severe hearing losses. Prerequisite: 72.200.
- 72.310 Speech Science (3) - Speech science is the study of the physiology of speech production, the acoustical characteristics of speech and the processes by which listeners perceive speech. Prerequisites: 72.220, 50.366.

72.320 Assessment and Remediation of Language Disorders (3) - Prepares students for the clinical application of language analysis procedures drawn from linguistics, psycholinguistics and sociolinguistics and to apply knowledge from these areas to the management of language disorders. Studies various intervention models. Prerequisites: 72.152, 72.220, 72.240.

72.330 Assessment and Remediation of Speech Disorders (3) - Considers the major theoretical approaches to assessment and treatment of speech disorders. Students engage in clinical observation, examination of standardized tests and procedures used in the differential diagnosis of disorders in the areas of articulation, phonology, fluency and voice. Provides training in the administration of therapy programs. Prerequisites: 72.152, 72.220.

72.340 Applied Behavioral Analysis for Speech and Language (3) - Applies the psychology of learning to communicative behavior and clinical problems. Presents current educational and therapeutic trends and practices.

72.430 Fundamentals of Audiology (3) - Presents a synopsis of primary concepts in diagnostic and rehabilitative audiology. Relates the possible implications of audiological topics to speech pathology, education of the hearing impaired, reading, nursing and special education.

72.450 Clinical Observation (3) - Students develop the skills of a trained observer and participate in observations of the practice of audiology and speech-language pathology. Observations are conducted on and off campus.

72.460 Psycholinguistics (3) - Presents the study of language as a psychological phenomenon. Areas of study include language acquisition, meaning, biology of language, sociolinguistics, nonverbal communication, animal communication and application of psycholinguistics to communication disorders. Prerequisites: 72.152, 72.240.

72.468 Speech Habilitation in the Schools (3) - Examines the profession of speech/language pathology in a school setting as it interfaces with the other school-related disciplines. Emphasizes facilitation of communication among the disciplines.

72.480 Internship in Speech-Language Pathology (3-6) - Students gain practical experience by working in clinical or school settings as observers and aides to CCC-certified speech-language pathologists who are engaged in assessment and/or remediation of communication disorders. Students select sites with the collaboration of the course instructor and contract to complete a variety of learning activities while at site.

72.482 Undergraduate Audiology Internship (3-6) - Students gain practical experience in audiology by observing and helping certified audiologists engaged in providing clinical services. Students select sites with the collaboration of the course instructor and contract to complete a variety of learning activities at the site.

72.492 72.592 Workshop in Audiology and/or Speech Pathology (1-6) - Focus on contemporary trends, topics and problems in the fields of audiology or speech pathology. Guest lecturers, resource speakers, team teaching, field experience and practicum, new media and technologies and related techniques and methodologies are included.

72.493, 72.593 Workshop in Audiology and/or Speech Pathology (1-6) - Focus on contemporary trends, topics and problems in the fields of audiology or speech pathology. Guest lecturers, resource speakers, team teaching, field experience and practicum, new media and technologies and related techniques and methodologies are included.

72.494, 72.594 Workshop in Audiology and/or Speech Pathology (1-6) - Focus on contemporary trends, topics and problems in the fields of audiology or speech pathology. Guest lecturers, resource speakers, team teaching, field experience and practicum, new media and technologies and related techniques and methodologies are included.

HRL (74) Studies in Hearing Loss

Administered by Department of Exceptionality Programs.

74.153 Introduction to Sign Language (3) - A study of sign language vocabulary and fingerspelling techniques used in communication with members of the deaf community. Emphasizes developing expressive and receptive skills.

74.154 American Sign Language I (3) - A study of American Sign Language (ASL) including the history of ASL and its recognition as a language. Focuses on development of expressive and receptive conversational ASL skills. Prerequisite: 74.153 or equivalent skills; instructor permission required.

74.155 American Sign Language II (3) - A continuation of ASL I with emphasis placed on more complex grammatical structures and conversational fluency. Prerequisite: 74.154.

74.201 History, Education and Guidance of the Deaf/Hard of Hearing (3) - Explores hearing loss with emphasis on the history of educational procedures and guidance in communicative, psychological and vocational habilitation.

74.254 The Deaf Culture (3) - Involves study and analysis of the deaf community. Emphasis on research and discussion of social, psychological and personal aspects of the members of the deaf community.

- 74.255 American Sign Language III (3) - Continuation of ASL II. Major focus on the study of ASL sign principles and linguistic structure of the language to continue building expressive and receptive ASL skills. Prerequisite: 74.155.
- 74.256 American Sign Language IV (3) - A continuation of ASL II. Focuses on more advanced linguistic aspects of ASL and a synthesis of all concepts previously learned. Prerequisite: 74.255.
- 74.260 Interpreting in the Educational Setting (3) - Study of interpreting within a variety of educational settings including postsecondary, secondary and elementary areas. Topical areas include: recent legislation on the status of interpreters, characteristics of various meetings and visually coded English Sign Systems.
- 74.301 Introduction to Interpreting for the Deaf (3) - Focuses on topics such as the Registry of Interpreters for the Deaf, various kinds of certification, establishing the interpreting situation and the mental processes involved in interpreting and transliteration. Emphasis on ethical behavior. Prerequisite: to be taken concurrently with 74.256.
- 74.302 Interpreting English to American Sign Language (3) - Focuses on building expressive interpreting skills. Experience gained through laboratory work and classroom discussions when interpreting situations for observation and practice are presented. Emphasizes professionalism, principles and ethics. Prerequisite: 74.301 or permission of the instructor.
- 74.303 Transliterating English to Sign Language (3) - Focuses on building transliteration skills. Experience gained through laboratory work and classroom discussions when transliteration situations for observation and practice are presented. Emphasizes professionalism, principles and ethics. Prerequisite: 74.301 or permission of the instructor.
- 74.304 Oral Interpreting/Transliterating (3) - Identifies information and techniques and the utilization of skills required for effective oral interpreting and transliterating. Includes use of personal characteristics to facilitate speech reading and the identification of the needs of the hearing impaired individual during interpretation. Prerequisites: 74.153 and 74.301.
- 74.305 Introduction to Instructional Methods for the Deaf/Hard of Hearing (3) - Introduces the design of instructional procedures and methods of implementing curricula for education of the deaf/hard of hearing. Discusses and demonstrates traditional and innovative approaches to teaching.
- 74.380 Phonetics (3) - Studies of the physiological, acoustical, perceptual and descriptive aspects of speech and sound production. Primary emphasis on the description, classification and transcription of speech sounds. Provides a base of knowledge for the diagnosis and treatment of phonemic and phonological disorders of communication. Prerequisites: 74.153, 74.201, 72.200, junior or senior standing.
- 74.390 Directed Project in Communication Disorders (3) - Gives students the opportunity to carry out special in-residence or field projects in professional service programs under the direction of the faculty or designated practitioners. A detailed project plan must be submitted for faculty approval prior to registration.
- 74.400 Communication Disorders Workshop (3) - Specialized study of communicatively handicapped persons, new technology in the field of communication disorders.
- 74.401 Sign to Voice Interpreting (3) - Emphasis on classroom discussion and laboratory work developing skills of comprehending the signed message, forming syntactically and contextually correct English interpretations and the proper use of the voice. Prerequisite: 74.301 or permission of the instructor.
- 74.415 Practicum in Interpreting (3) - Involves the placement of the student in interpreting situations on and off campus to gain "on-the-job" experience. Requires a minimum of 120 interpreting hours.
- 74.462 Problems in Education of the Deaf/Hard of Hearing (3) - Addresses the educational problem of hearing loss and the function of teachers in public and private educational settings.
- 74.469 Experience in Education of the Deaf/Hard of Hearing (1-3) - Provides experience working under supervision with deaf and hard of hearing children in a demonstration classroom or field facility. Prerequisite: Consent of the instructor.
- 74.480 Independent Study and Research (1-3) - Permits students to work under faculty guidance when particular needs cannot be met by regularly scheduled courses. Learning experiences may include library research or creative academic projects. Nature and scope of the project determine semester hours awarded.
- 74.490 Counseling Needs of Communicatively Disordered Individuals and Their Families (3) - Designed to help students identify counseling needs of communicatively disabled individuals and their families and to provide basic, short-term counseling. Students introduced to various counseling strategies in individual and group settings as appropriate to schools and speech and hearing clinics.

PRS Professional Studies

Administered by the Departments of Early Childhood and Elementary Education, Educational Studies and Secondary Education and Exceptionality Programs.

79.312 Internship in Education (1-15) - A work study program in an education-related setting applicable to fulfilling free electives in teacher education degree programs.

79.320 Field-Based Inclusion Practicum (6) - Provides application of theories in learning, assessment, classroom management and teaching strategies to inclusive school settings. Topics include building home/school partnerships, environmental/curricular adaptations, instructional support teams, collaboration, cooperative learning, mastery learning, classroom management, whole language, curriculum-based assessments, peer coaching. Prerequisite: junior or senior status.

HLT (80) Health Sciences

80.400 Health Sciences Internship (3-6) - Provides the opportunity to apply acquired knowledge in an on-site practicum experience under the supervision of an appropriately credentialed preceptor. Open to students in the health sciences. Prerequisite: senior standing.

NUR (82) Nursing

Administered by Department of Nursing.

Courses within the nursing curriculum are restricted to students in the B.S.N. program, except for 82.217 Alcohol: Use and Abuse which is a values or free elective open to all students.

82.200 Nursing Placement (Variable) - A number used to transfer in advanced placement credits resulting from NLN Mobility II Profile tests or ANA certification examinations which may be taken by registered nurses.

82.204 Critical Evaluation of Research in Nursing (1) - Introduces research methods and techniques. Focuses on the student as a consumer of research with emphasis critiquing research studies for application and the ethics of research with human subjects. For Non-Matriculating RNs.

82.205 Research Application in Nursing (1) - Focuses on the contribution of research to the discipline and the consumer's role in applying research findings. Emphasizes identifying researchable problems and improving practice through application of research findings. Prerequisites: 82.204, statistics course. For Non-Matriculating RNs.

82.206 Proposal Writing in Nursing (1) - Focuses on the research process in identifying a researchable problem and formulating a beginning level research prospectus. Emphasizes conceptualization of a design to study a research problem. Prerequisite: 82.204, 82.205, statistics course or consent of instructor. For Non-Matriculating RNs.

82.210 Professional Nursing (3) - Introduces the student to the Bloomsburg University undergraduate nursing program and the concepts and processes of professional nursing. Defines and discusses mission, philosophy and conceptual model of the curriculum. Presents and integrates major concepts of the program. Students develop the view of person as a holistic open-system who is growing and developing across the life span. Explores the person's environment as related to nursing practice. Nursing roles are introduced and examined. Laboratory activities furnish opportunities to develop skills in group dynamics, communication and teaching. The nursing process is applied as the student demonstrates the teaching role with clients in the community. Prerequisites: 45.211 or 45.213 or 46.200; 48.101, 48.210, 50.173, 50.174, 52.101, 52.108, concurrent 50.240; sophomore nursing student status.

82.211 Nutrition (3) - Provides an introduction to the basic principles of nutrition and ways in which nurses apply these principles to promote an optimal level of wellness for all individuals. Addresses nutritional components of holistic nursing care including health promotion, nursing clinical practice and dietary modifications to treat disease. Prerequisites: 82.210, 82.212, 82.214, concurrent 50.240, 82.213 and 82.215.

82.212 Pharmacology (3) - Provides a foundation in pharmacology for pharmacologic content integration throughout the curriculum. Explores the legal, social, ethical, historical and political dimensions of pharmacotherapeutics. Prerequisites: 50.173, 50.174, 52.101, 52.108, 45.211 or 45.213 or 46.200, 48.101, 48.210, concurrent 50.240, 82.210, 82.214; sophomore nursing student status.

82.213 Foundations of Nursing Practice (5) - Focuses on the application of nursing process to promote optimal levels of functioning of the adult and older adult. Students apply theory to the care of the individual client as they begin to assume the nursing roles of practitioner, teacher, leader/manager and consumer of research. Students expand their knowledge and application of major nursing concepts as they provide health care to clients in non life-threatening situations. Laboratory simulations and computer instruction enable the student to develop psychomotor skills basic to nursing practice. Instructional strategies include clinical experiences with clients in community and hospital settings. Prerequisites: 82.210, 82.212, 82.214, 50.240, concurrent 82.215 and 82.211.

- 82.214 Health Assessment (3)** - Introduces techniques and principles of health assessment for adult clients. Communication and interviewing skills are reinforced throughout the course. Health patterns of adults are assessed. Validation of health histories and practice of review of systems and basic assessment skills will occur in the simulated learning laboratory. Prerequisites: prior to or concurrent with 82.210 and 82.305 (RNs only).
- 82.215 Pathophysiology for Nursing Practice (3)** - Assists the student to apply the physiological principles as a means of understanding pathological conditions. Pathophysiological disruptions to system functioning are presented. The impact of these disruptions on the individual are discussed. Students develop an understanding of the signs and symptoms associated with selected pathophysiological disruptions as a basis for determining nursing care needs. Prerequisites: prior to or concurrent with 82.213 and 82.211.
- 82.217 Alcohol: Use and Abuse (3)** - Provides comprehensive overview of alcohol use and misuse in the American population. Because alcohol is a leading public health problem in the U.S., this course is intended for students in all disciplines. Examines the nature of alcohol problems as well as socio-cultural attitudes towards drinking. Explores alcohol's effects on the body. Discusses the impact of alcoholism on adolescents, professional workers, women, the elderly and the family. Examines prevention, intervention and referrals. An overview of treatment and rehabilitation that includes spiritual, moral and legal aspects.
- 82.305 Role Development for the Nurse Generalist (RN) (3)** - Resocializes the registered nurse for professional practice. Introduces the purpose, objectives and conceptual framework of the Department of Nursing's program. Through increased knowledge and integration of varied professional nursing concepts, the student develops the roles of practitioner, teacher, leader/manager and consumer of research. Prerequisites: Current state RN license; 50.173, 50.174, 50.240; 45.211 or 45.213 or 46.200; 48.101, 48.210; 48.160 or 53.141; 52.101, 52.108; and requirements under the articulation model.
- 82.306 Introduction to Nursing Research (3)** - Introduces students to the concepts, skills and processes of research in nursing. The contributions of selected nursing theorists are explored as frameworks for nursing inquiry. Students evaluate research critically and examine its importance to the discipline of nursing. Prerequisite: 48.160 or 53.141; junior standing; 82.305 (if RN) or consent of instructor.
- 82.307 Geriatric Nursing (3)** - Focuses on the physiological, psychological and social aspects of aging with emphasis on the assessment of problems and appropriate nursing intervention. Prerequisite: junior or senior standing or RN. (Spring semester only.).
- 82.310 Family Nursing (2)** - Focuses on the concept of family as an open system and use of the nursing process to assess and promote family health across its lifespan. Students analyze the structures and functions of the family in contemporary U.S. society as a basis for determining health care needs. The role of the environment and sociocultural factors are explored as they influence the family's various functions. Stresses the nurse's role in assisting the family to assume responsibility for meeting the needs of members. Prerequisite: junior standing in nursing program, 82.213, concurrent with 82.311 or 82.312 fall semester only.
- 82.311 Adult Health I (7)** - Focuses on the application of the nursing process to promote and restore the health of older adults with chronic or potentially life-threatening illnesses. Students apply developmental theory related to the older adult while providing health care. Increasing independence in nursing roles occurs as students collaborate with health care providers in a variety of settings. Prerequisite: 82.213, junior standing..
- 82.312 Maternal and Child Health Nursing (8)** - Focuses on family-centered nursing and application of the nursing process to promote and restore health with women, neonates, children and their families. Students apply a variety of family and developmental theories to nursing practice with clients in community and hospital-based settings. Health education that encourages responsibility for health promotion is discussed. The role development of the student is enhanced through interactions with a variety of health care providers in a collaborative effort to meet the health needs. Prerequisite: 82.213, junior standing.
- 82.313 Special Topics (1-6)** - Presents a diversity of topics focusing on contemporary trends, issues and problems relevant to the principles and practice of professional nursing in the health care system. .
- 82.405 Independent Study (1-6)** - Requires investigation of an area of special interest and value to the student under the direction of a faculty member following a plan approved by the department chairperson. Course may be interdisciplinary. Prerequisite: junior or senior standing or consent by department.
- 82.410 Community Health Nursing (5)** - Focuses on the use of the nursing process, demography, epidemiology, program planning and evaluation to assist communities with the promotion, restoration and maintenance of health. The impact of multiple systems on health and healthcare delivery are identified as students collaborate with clients, support systems other providers, public health agencies and the community as a whole. Role development will be fostered through independent and interdependent activities with culturally diverse groups and organizations. Approved as a cultural diversity course. Prerequisites: 82.306, 82.310, 82.311, 82.312, 82.305.

82.411 Psychiatric/Mental Health Nursing (5) - Focuses on the application of diverse theories, psychobiological concepts and epidemiological principles to students' use of nursing process to promote, maintain and restore the health of a culturally diverse client population in a variety of mental health care settings. Students employ a "therapeutic use of self" and function in independent and interdependent roles as they collaborate with client, support systems and other providers to deliver holistic and humanistic care. Prerequisites: 82.306, 82.310, 82.311, 82.312.

82.412 Adult Health Nursing II (7) - Focuses on meeting the health care needs of a diversity of adult clients with complex needs. Students employ developed skills in critical thinking to problem-solve and make decisions. Students use nursing process, therapeutic skills and technology in assisting these clients to attain an optimal level of functioning. They collaborate with clients and the interdisciplinary team to promote, maintain and restore optimal health to a variety of clients. Learning experiences are provided in order for students to continue to develop proficiency as a practitioner, teacher, leader/manager and consumer of research. Course promotes integration of values into professional behaviors and accountability for personal and professional growth. Prerequisites: 82.306, 82.310, 82.311, 82.312. (82.305 for RNs).

82.414 Nursing Management/Leadership (4) - Focuses on management principles, including leadership theories and concepts, decision-making processes, budgeting guidelines and case management concepts. Content on public policy and health care economics is incorporated. Principles from this course are integrated into concurrent clinical courses to enhance professional role development. Prerequisites: 82.306, 82.310, 82.311, 82.312, senior nursing major status.

82.451, 82.551 Transcultural Health Issues (3) - Provides students with a global perspective of transcultural health issues. Students analyze the cultural, social, educational, economic, political and environmental forces that contribute to health on an international level. Compares major cultural and ethnic determinants of health in developed and developing countries will be compared, addresses approaches used by diverse cultures in various countries in solving their health care problems and examines research on transcultural health issues. Evaluates the role of major international health organizations dealing with cultural and ethical issues in world health. Prerequisites: junior, senior or graduate standing. Approved as an interdisciplinary and cultural diversity course.

MDT (86) Medical Technology

Administered by Department of Biological and Allied Health Sciences.

86.401 Clinical Microbiology (6-10) - A lecture and laboratory study of bacteria, fungi, parasites and viruses which cause disease in humans, their clinical pathology and related diagnostic laboratory procedures.

86.402 Clinical Hematology/ Coagulation (6-10) - A lecture and laboratory study of hematopoiesis and blood coagulation. Students acquire an understanding of the theory of hematological tests, skills in the performance of these tests, knowledge of blood disorders and insight into the significance of test results.

86.403 Clinical Chemistry for Medical Technologists (6-10) - Lecture and laboratory study of enzymes, carbohydrates, lipids, proteins, nitrogenous end products, electrolytes, acid-base balance, body fluids, toxicology, endocrinology and urinalysis. Lecture series includes anatomy, physiology, methods of analysis and clinical significance of each biochemical determination. Laboratory study includes standardization and quality control of procedures using spectrophotometry, chromatography, electrophoresis and automated techniques.

86.404 Clinical Immunohematology (3-6) - Lecture and laboratory study of blood groups, genetics, antigens and antibodies and their interaction as related to safe transfusion, prediction of immune incompatibilities and probability of parentage. Donor collection, processing, blood component preparation and therapy also studied.

86.405 Clinical Immunology/Serology (2-4) - Lecture and laboratory study of immunological concepts and theory and their relation to serologic reactions and clinical interpretations.

86.406 Clinical Seminar (1-6) - Covers courses not included above, such as orientation, laboratory management, education, clinical microscopy and/or areas unique to the individual hospital program.

BUS (90) General Business

Administered by Department of Business Education and Office Information Systems.

90.101 Introduction to Business (3) - Provides a study of business and its environment organization, operation and interrelationships with government and society. Business majors develop a broad base for further study in a specific area in business, while other majors become familiar with the American enterprise system and the functions and issues facing business today. Prerequisite: Not open to business administration degree students with 6 or more semester hours in business.

- 90.333 Business Communications and Report Writing (3) - Applies theories and principles of effective communication to solve common business problems. Psychological and organizational strategies are used in writing business reports and other documents. Prerequisite: junior or senior standing.
- 90.341 Principles of Selling (3) - Includes a study of selling as a profession, preparation for successful selling, steps and procedures associated with the sales process and special selling topics. Students apply sales principles and techniques while conducting sales presentations. Prerequisite: junior standing.
- 90.350 Valuing Diversity in Business (3) - A study of the challenges and opportunities presented to businesses in the United States by an emerging multicultural society. Explores cultural heritage, values, beliefs and prejudices and the effects of privilege and oppression upon individuals organizations and businesses, as well as possible solutions.
- 90.402 Methods of Teaching Business Education (3) - Emphasizes a variety of methods and materials for teaching certification areas of business education. Must be scheduled the semester prior to student teaching and concurrently with 90.403. Classroom discussions closely correlate with the experiences of 90.403. Prerequisite: Admission to teacher education.
- 90.403 Business Education Field Experience (1) - Initiates an awareness of the teaching and learning atmosphere of the professional teacher in the classroom. Students provided opportunities to undertake the responsibilities assigned to a classroom teacher, including assuming some of the teaching role competencies. Must be scheduled the semester prior to student teaching. Prerequisite: Admission to teacher education.
- 90.404 Professional Semester in Business Education (12) - Includes orientation experiences to observe the operation of a school and specific classes as well as 16 weeks of participatory teaching experiences correlated with classroom studies under full-time supervision. Must be scheduled concurrently with 90.406.
- 90.406 Clinical Studies in Business Education (3) - Presents seminars on principles of education for business teachers, methods of teaching business subjects, strategies and problems of classroom teaching. Classroom discussions closely correlated with the experiences of 90.404.
- 90.431 Independent Study in Business (1-3) -Topic and outline of project must be approved by the department chairperson and dean of the college. Prerequisite: Open to seniors only.
- 90.432 Internship in Business (1-6) - Provides students with opportunities to acquire practical experiences in work situations in office systems. Prerequisites: Approval by department chairperson; GPA of 2.50 and 80 semester hours earned.

- 90.460 Business and Office Workshop (1-3) - Students acquire an awareness and understanding of the knowledge pertaining to the professional development and improvement of business skills, the enhancement of business and office education as a professional responsibility and their role in the business world.
- 90.498 Special Topics in Business Education and Office Systems (1-3) - A study of the aspects of business education or office systems. Not available as a regular course offering.

ACC (91) Accounting

Administered by Department of Accounting.

- 91.220 Financial Accounting (3) — Familiarizes students with a basic understanding of generally accepted accounting principles and their applications. Includes sole proprietorship, partnership and corporate accounting. General ledger and/or spreadsheet computerized accounting required. For non-accounting majors only.
- 91.221 Principles of Accounting I (3) — Presents the accounting cycle covering both service and merchandising activities of a sole proprietorship; special journals and special ledgers, accrued and deferred items and receivables and inventories. General ledger and/or spreadsheet computerized accounting is required.
- 91.222 Principles of Accounting II (3) — Further develops the accounting cycle; recording, summarizing, interpreting financial data for partnerships and corporations. Includes cash flow, long-term liabilities, plant assets and payroll accounting. A practice set and general ledger and/or spreadsheet computerized accounting are required.
- 91.223 Managerial Accounting (3) — Presents volume-cost-profit analysis, special decisions, operational and financial budgeting, control and performance evaluation, job-order and process costing, variance analysis, cost allocation, quantitative decision-making techniques and analysis of financial statements. Students are expected to be proficient in the general use of Lotus 1-2-3 or Lotus 1-2-3 compatible electronic spreadsheets. Students are required to retrieve, modify, complete, save and print electronic spreadsheets dealing with many of the topics. Prerequisites: 91.220 or 91.222.
- 91.320 International Accounting (3) — Addresses needs of accounting and finance students wishing to become more qualified in accounting on a global perspective. Provides an international accounting component for students who have completed foundation courses. Prerequisites: 91.220 or 91.222. Meets cultural diversity requirement.

- 91.321 Intermediate Accounting I (3) — Presents the conceptual framework of accounting, accounting environment and information processing system, financial statements and the accounting standards regarding present and future value concepts, cash and receivables, temporary investments, inventories and short-term liabilities. Requires the use of Lotus 1-2-3 to solve computer problems in each chapter. Prerequisite: 91.222.
- 91.322 Intermediate Accounting II (3) — Presents accounting standards for property, plant and equipment, intangible assets, income recognition, long-term debts by borrower and lender, formation of corporations and stockholders equity, retained earnings, stock rights and options and investments in securities and consolidated financial statements. Requires student to use an approved word processing software package to produce a research paper that analyzes one FASB, reviewing the related accounting literature. Prerequisite: 91.321.
- 91.323 Intermediate Accounting III (3) Presents accounting standards pertaining to statements of cash flows, pension plans, leases, earnings per share, income taxes, accounting changes and error corrections and financial reporting and changing prices. Use of Lotus 1-2-3 to solve computer problems in each chapter is required.
- 91.324 Federal Tax Accounting (3) - Introduces basic tax laws pertaining to preparation of individual federal tax returns and supporting schedules. Emphasis on tax law research using federal tax services and contemporary professional literature. Prerequisite: 91.321.
- 91.342 Auditing Theory and Procedure (3) Outlines principles, standards, procedures and techniques applicable to internal and public auditing; consideration of the audit report and development of working papers for preparation of the report. Use of commercial computer packages to generate audit programs. Use of Lotus templates to work problems and use of word processing package to prepare a research paper. Prerequisites: 91.322, Economics 40.346.
- 91.348 Cost Accounting (3) — In-depth study of the three major production costs - raw material, factory overhead and labor - for a job order cost system. Prerequisite: 91.321.
- 91.424 Advanced Federal Tax Accounting (3) Assigns group and individual projects selected from the following areas of advanced tax accounting; partnerships and corporations, Pennsylvania corporate taxes, estates and trusts, reporting to governmental agencies. Includes lectures, discussion of issues and practice in the solution of problems. Prerequisite: 91.324.
- 91.430 Advanced Accounting I (3) Applies accounting principles to special problems in the consolidation and merger of business enterprises. Includes consideration of the basis for such combinations, consolidated statements on date of acquisition as well as at subsequent dates with special emphasis on design, construction and utilization of integrated microcomputer-generated worksheets and financial statements. Prerequisite: 91.322.
- 91.431 Advanced Accounting II (3) — Focuses on accounting principles and practices of governments and non-profit institutions. Includes partnerships, estates, trusts and bankruptcy accounting. Prerequisite: 91.322 or consent of the instructor.
- 91.432 Internship in Accounting (6) — Provides work experience in the accounting profession. Prerequisite: 80 semester hours completed and adequate course preparation for the tasks to be performed.
- 91.448 Advanced Cost Accounting (3) — Continuation of 91.348, concentrating on process cost, standard cost and budgets. Emphasis on methods used to analyze and interpret cost data. Prerequisite: 91.348.
- 91.449 CPA Problems (3) — Addresses the application of procedures for the solving of a cross section of complex accounting problems and the discussion of theory and practice. Prerequisites: 91.324, 91.342 and 91.348; senior standing or consent of the instructor.
- 91.498 Special Topics: Introduction to Healthcare (3) - Introductory management and leadership skills for the health professional, who by education and background is prepared not to manage but to practice a profession, but nevertheless finds her/himself in a management position.

CIS (92) Computer and Information Systems

Administered by Department of Computer and Information Systems.

- 92.150 Introduction to Computer and Information Science (3) - Introduces computer-based systems and their use in problem solving and information processing. Includes a study of hardware and software concepts, data management, data communications and system development. Involves hands-on experience with word processing, spreadsheet and file management software using networked microcomputers.
- 92.177 Structured Programming Methodology (3) - Introduces structured problem solving and programming, encompassing data representation, data structures and control structures. Develops skills and knowledge needed to solve business problems with a computer; investigates software/tools used with CIS curriculum. Examines data representation, data structures, control structures, structured programming, algorithm development and computer concepts. Involves programming exercises using a high-level language on a UNIX platform. Prerequisites: 92.150 or 56.110 or equivalent.

- 92.251 Mini/Micro Programming Systems (3) - Surveys minicomputer capabilities available to the small business. Focuses on business applications and system design considerations for micro-based systems. Students work with a variety of software systems including: operating systems, a database management system, network software and other emerging tools using networked microcomputers. Prerequisites: 92.150 or 56.110 or equivalent.
- 92.252 Business Oriented Programming (3) - Detailed study of structured problem solving in a business environment. Explores logical and physical structures, data representation, modular design, structured programming and documentation. Presents processing techniques for one and two-level tables, data validation, control break logic and sequential file processing. Students develop increasingly complex programs using COBOL in a UNIX environment. Prerequisite: 92.177 or 56.121.
- 92.254 Management Information Systems (3) - A study of how computer-based information systems provide information for effective decision making. Includes: structured analysis, design techniques, database concepts, person-machine interaction, data retrieval and telecommunications. Focuses on the use of information technology in the modern business. Prerequisites: 92.150 or 56.110 or equivalent.
- 92.256 Data and Information Structures (3) - Studies standard data and file structures and algorithms for creation and manipulation of these structures. Explores rationale for use of structures under varying circumstances from both a practical and theoretical perspective. Involves computer exercises implementing selected algorithms in a suitable high-level language on a UNIX platform. Prerequisite: 92.177 and 92.252.
- 92.350 Analytic Computing Concepts (3) - Presents a detailed examination of the C programming language and programming techniques appropriate to the UNIX environment. Data representation, code generation and programming considerations related to file maintenance with UNIX and C explored and developed through actual programming experiences. Prerequisite: 92.256 or 56.210.
- 92.351 Systems Analysis and Design (3) - Provides an opportunity to bring together experiences in CIS courses, other business courses and life to create usable business information systems. Helps develop skills required for successful business system development. Prerequisites: 92.252.
- 92.352 Advanced Programming (3) - Presents advanced concepts of programming in COBOL with major emphasis on indexed sequential files, interactive programming, subroutine linkage, random files and SQL RDBMS programming concepts. Prerequisites: 92.252.
- 92.354 Data Base Processing Systems (3) - Details and examines data base terminology organization and models. Analysis, design and administration of a relational compatible data base explored through applicable programming experiences. Prerequisite: 92.256 or 56.355.
- 92.356 Operating Systems (3) - Presents an overview of operating systems including real and virtual operating systems and communications software and techniques. Includes diagnostic facilities, utility routines and system commands. Provides a detailed look at UNIX. Prerequisite: 92.350.
- 92.358 Data Communication Systems (Spring) (3) - Data communications terminology, technology and the functional characteristics of communications hardware and software detailed and explored. Emphasizes systems and programming considerations as related to a commercial environment. Prerequisite: 92.256 or 56.355.
- 92.432 Internship in Computer and Information Systems (6) - An educational arrangement between the student and an approved industrial, business or government agency that provides a supervised work experience in a professional area of computer and information science. The experience relates to the academic principles and theories upon which the Computer and Information Systems curriculum is based. Prerequisites: Grade point average of 2.5 and 80 semester hours.
- 92.450 Expert Systems and Artificial Intelligence (Fall) (3) - A survey of basic concepts and techniques of expert systems and artificial intelligence applied to commercial information systems. Examines knowledge acquisition, representation, storage and inferencing methods used in expert systems. Stresses applications and illustrations from the business environment. Prerequisite: 92.256 or 56.355.
- 92.452 Advanced Software Development (Fall) (3) - A formal approach to modern techniques of software design and development and provides for hands-on experience for students to apply the techniques. Students work in teams in the organization, management and development of a large software project. Emphasizes the use of CASE tools. Prerequisite: 92.351.
- 92.456 Managerial Computer Applications (3) - Provides practical experience in analysis of business problems. Features advanced techniques and concepts of systems analysis and design along with software engineering with major emphasis on management information systems and decision support systems. Uses team approach to analyze, design and document realistic systems. Uses project management methods, project scheduling and control techniques, formal presentations and group dynamics. Prerequisite: 92.351.

- 92.498 Special Topics (3) - Examines current or advanced issues in the field of computer and information systems not normally examined in depth in other courses.
- 92.550 Information Processing (3) - A comprehensive introduction and basic orientation to the use of information processing in the educational environment. Students required to investigate the impact of the computer and associated peripheral devices on the classroom. Emphasis on the effective use of available computer resources.
- 92.554 Management Information Systems (3) - Studies information analysis and systems design from the user's point of view. Students identify the basic concepts of systems point of view organization as a system, information flows and nature of management information systems. Data bases and data base management systems will be investigated from the manager's perspective.

MGT (93) Management

Administered by Department of Management.

- 93.344 Principles of Management (3) - Administrative organizational and behavioral theories and functions of management, contributing to the effective and efficient accomplishment of organizational objectives. Prerequisites: 45 semester hours earned, 40.211.
- 93.345 Human Resource Management (3) - Equips students with tools and procedures to address human resource issues and problems. Prerequisite: 93.344.
- 93.346 Labor and Industrial Relations (3) - Describes administration of the relationship between management and the labor force, both where that relationship is governed by a collective bargaining agreement and where it is not. Includes development of the social and legal status of trade unions organizing, negotiations, strikes, grievance procedure and union security. Prerequisite: 93.344.
- 93.347 Management Science (3) - Prerequisites: 53.141, 40.346, 93.344 and either 40.246 or 53.123.
- 93.348 Operations Management (3) - Educates and trains students to deal with the operational issues and problems in manufacturing and services. Prerequisites: 53.141, 40.346, 40.246 or 53.123.
- 93.350 Quality Management (3) - Introduces students to the major concepts and techniques used in quality management and control.
- 93.355 Managing Multicultural Organizations (3) - Prerequisite: 93.344.
- 93.362 Organizational Design (3) - Discusses the differences between micro and macro perspectives in the study of organization and provides a macro view in which the organization is the unit of analyses as opposed to individual members. Provides students with an in-depth understanding of how organizations are formed and how external as well as internal factors influence the structure and design of the organizations. Also explores variables for designing and managing organizations.
- 93.391 Small Business Management (3) - Introduces environment of small business in the United States. Describes types of small business and problems associated with each type. Covers ownership, start up, franchising, finance, accounting, personnel, risk management, inventory, advertising and marketing and production processes. Special emphasis is given to incentives and legal requirements of Pennsylvania with regard to small businesses. Prerequisites: 91.220, 91.223, 93.344, 96.313, 97.310 and 98.331.
- 93.432 Internship in Management (3-6) - Integrates classroom experience and practical work experience in industrial, business or government work situations. Allows students to translate academic theories and principles into action, to test career interests and to develop skills and abilities through carefully planned and supervised problems related to the field of management. Prerequisites: 93.344 or approval of internship supervisor, GPA of 2.50, 80 semester hours and major or minor in business administration.
- 93.440 Small Business Institute Seminar (1-3) - Teams of students work with local businesses in a consultancy capacity to aid small businesses while applying business principles. Work includes analysis of a problem, determination of alternative solutions, recommendation of the optimum course of action by means of an oral presentation to business owners. Prerequisite: GPA of 2.5, 91.220, 91.223, 93.344, 96.313, 97.310 and 98.331.
- 93.445 Managerial Communications (3) - Prepares students for effective managerial communication by providing preparation in the process and structure of communication in a professional setting. Prerequisites: 20.101, 20.201, 25.103 and 93.344.
- 93.449 Organizational Behavior (3) - Provides the tools and theories regarding personal, interpersonal and group processes within the organization at the micro level. Prerequisite: 93.344.
- 93.456 International Management (3) - Develops and understanding of the issues related to international business environment, refines this knowledge by the analysis of current economical, social and political issues that can influence international and global companies and prepares students to analyze international business issues as a manager of a multinational/global company. Prerequisite: 93.344.

- 93.457 Business and Society (3) - Prepares students to manage social responsibility and ethics issues related to business operations and the interests of multiple stakeholders. Prerequisites: 96 semester hours earned, 20.101, 20.201, 25.103, 93.344, 96.313, 97.310 and 98.331.
- 93.481 Business Policies and Strategies (3) - Prepares students in the area of strategic decision-making for the total organization through strategic formulation and administration using integrative analysis and strategic planning and process. Prerequisites: 110 semester hours earned, 91.220, 91.223, 93.344, 96.313, 97.310 and 98.331.
- 93.498 Special Topics - Management (3) - Examines current or advanced issues in the field of management not normally examined in depth in other courses. Prerequisite: approval of the department chairperson.

OIS (94) Office Information Systems

Administered by Department of Business Education and Office Information Systems.

- 94.221 Office Systems Concepts (3) - An overview of office systems-technology, people and procedures within organizational and environmental contexts. Major technologies support information creation, storage, retrieval, manipulation and distribution are covered.
- 94.302 Business Document Generation (3) - Provides the student with the opportunity to use computer and business applications software to generate business documents and presentations.
- 94.330 Telecommunications (Spring only) (3) - An introduction to telecommunications in the business environment. Emphasis on application of telecommunications to facilitate information interchange in whatever form the information takes: data, voice, text and image. Prerequisite: Junior standing.
- 94.405 Training and Development in Office Systems (Fall only) (3) - Application of theories of learning and instructional development to the education and training of employees in office systems. Topics include instructional design, technology and the implementation, evaluation and management of training in an organizational environment. Prerequisite: Senior standing or 64 credits.
- 94.407 Information and Office Environment Management (Fall only) (3) - Provides acceptable practices in the management of information and the office environment. Students will develop an understanding of the information life cycle, the importance of an ergonomically designed work environment and how information serves as a critical organizational asset. Topics include: records management systems, human factors in the office environment (ergonomics), workflow and spatial design and layout. Prerequisites: 94.221, 94.302, 90.333, senior standing.

FIN (96) Finance

Administered by Department of Finance and Business Law.

- 96.313 Introduction to Corporate Finance (3) - Studies financial management in the areas of asset valuation, risk, working capital management, capital budgeting, cost of capital, financial structure, financing sources and dividend policy. Prerequisites: 91.220, 40.211 and 40.212.
- 96.323 Financial Markets and Institutions (3) - Studies short-term money market and long-term capital market instruments, major financial institutions, the relationship between interest rates and security prices and the role of the consumer and government in financial markets. Prerequisite: 96.313.
- 96.333 Commercial Bank Management (3) - Covers fundamental principles of bank operations. Includes a survey of various bank functions such as accounting, trust department, international financial services, lending operations, public service and liability management. Prerequisite: 96.313.
- 96.343 Investment Management (3) - Outlines principles of security investments: descriptions of investments instruments, investment planning, security valuation, portfolio theory and strategy and security markets. Prerequisite: 96.313.
- 96.413 International Finance (3) - Studies the principles and practices relevant to understanding the nature of international finance, its problems and its institutions. Discussion centers on sources and instruments of international export and import financing, balance-of-payments, exchange rates, governmental regulations and policies, financial management, as well as accounting for international transactions. Prerequisite: 96.313.
- 96.423 Security Analysis and Portfolio Theory (3) - Detailed analysis of major elements related to determining the earnings and risk potential of securities and study of the underlying principles inherent to portfolio construction. Prerequisite: 96.343.
- 96.432 Internship in Finance(1-6) - Prerequisites: 96.313, junior or senior standing and GPA of 2.50.
- 96.440 Introduction to Options and Futures (3) - Detailed analysis of major elements affecting market prices of options and futures contracts and analysis of optimal investment strategies involving these derivative instruments. Prerequisite: 96.343.
- 96.454 Advanced Corporate Finance (3) - Studies business financial problems and the development of financial decision-making tools and practices as used in the decision-making role of the financial manager. Prerequisite: 96.313.
- 96.463 Seminar in Finance (3) - Explores a wide range of topics in finance, primarily focused in the area of financial management. Designed primarily for senior finance majors. Prerequisites: 96.313 and 96.343.

- 96.473 Seminar in Investments (3) - Examines a wide variety of topics in the field of investment management and portfolio theory. Designed primarily for Seniors majoring in finance. Prerequisites: 96.313 and 96.343.

MKT (97) Marketing

Administered by Department of Marketing.

- 97.310 Marketing: Principles and Practice (3) - Surveys the fundamental features of contemporary marketing systems and the planning required to make available satisfying goods and services to customers at a profit. Explains the role of marketing in society and the institutions which compose the market system. Describes components of the marketing mix-product planning, distribution, pricing and promotion. Prerequisite: 40.211, 40.212.
- 97.320 Marketing for Nonprofit Organizations (3) - Hospitals, social service agencies, universities, fraternities and sororities, political candidates, governments, churches and libraries are some of the nonprofit organizations which are challenged to effectively solve their marketing problems. Through understanding and by applying marketing theory and methods, students realize how they can aid organizations in developing a better product, price, distribution and promotion decisions for the publics they seek to serve. Prerequisite: 97.310.
- 97.330 Consumer Motivation and Behavior (3) - Analyzes the role of the consumer as the ultimate buyer of the product and the strategy and forces directed at the consumer by the seller. Topics include models of consumer buying behavior, consumer motivation, interpersonal and intrapersonal influence on the consumer as a decision maker in the market place. Prerequisite: 97.310, 48.101.
- 97.350 Retail Management Concepts (3) - Presents retailing as a dynamic aspect of the marketing/channels distribution system. Consumer/marketing analysis, store location, store layout, merchandising, pricing, promotional issues and problems are considered. Prerequisites: 97.310, 40.212.
- 97.370 Sales Management (3) - Studies the personal selling element of the marketing/promotional program from a management perspective. Recruiting, selecting, training organizing, motivating, compensating, evaluating and controlling the sales force are treated, as well as management's planning responsibilities which include designing intelligence systems, forecasting and establishing sales territories. Special consideration is given to sales management's inputs and integration with marketing management. Prerequisite: 97.310.
- 97.410 International Marketing (3) - Applies the managerial process to the development of international marketing programs. Emphasizes the development and determination of objectives and methods of organization including the execution of research, advertising and distribution activities. Considers special problems of adopting marketing principles to fit conditions in different countries. Prerequisite: 97.310.
- 97.431 Independent Study in Marketing (3) - Develop research skills in an academic and experience-based setting through collaborative research with a faculty member. Apply marketing theory to an employment situation or research objective. Prerequisite: Nine semester hours in marketing.
- 97.432 Internship in Marketing (1-6) - Develops skills in an experiential setting that are not available in the academic classroom. Students learn to relate marketing principles and practices to an employment situation. Prerequisites: 97.310, 2.0 GPA, 80 semester hours and junior or senior standing.
- 97.440 Marketing Research (3) - Develops the skills of the scientific marketing research procedure (problem definition, research design, data collection, analysis and interpretation). Applies recent developments in marketing information systems to product planning, advertising research, consumer and competitive analysis. Prerequisites: 97.310, 97.330 and 40.346.
- 97.450 Advertising Management (3) - Studies the advertising element of the marketing/promotional program from a management perspective. Examines advertising's role in business and society. Advertising's use of the communication process is studied from a theoretical and practitioner's perspective. Development of an ad campaign is highlighted with emphasis on management decisions involved in planning and execution. Special attention given to budgeting, copywriting, media analysis and choice. Prerequisite: 97.310, 97.330.
- 97.460 Marketing Management (3) - Presents an advanced study of the marketing programs from the systems and managerial viewpoint. Applies analytic, communicative and problem-solving skills to evaluation and creative planning in the marketing environment. Uses business marketing cases as a vehicle for developing the marketing executive's abilities. Prerequisites: 97.310 plus 9 hours in Marketing.
- 97.480 Industrial Marketing Strategy (3) - Strategies for marketing products and services to industrial, commercial and governmental markets. Changing industry and marketing structures are analyzed. Prerequisite: 97.310.

- 97.490 Contemporary Problems/Issues in Marketing (3) - Explores major issues, trends and problems characterizing the current marketing environment. Encourages students to do extensive reading in current marketing and other related literature. Theoretical, environmental research and trade-off issues in marketing are assessed. Case study, group projects and group dynamics are used. Prerequisites: senior standing and 6 semester hours in marketing.

BSL (98) Business Law

Administered by Department of Finance and Business Law.

- 98.331 Law and the Legal Environment (3) - Covers the structure of the American legal, constitutional and regulatory system, the nature and sources of law, competing theories of law and the principles of law applicable to business, including administrative law, contracts and the UCC Article 2, torts and products liability, property and criminal law.
- 98.332 Business and Commercial Law (3) - Presents basic principles of commercial law (UCC), agency and such topics as debtor/creditor relations, business organizations and ethics. Prerequisite: 98.331.
- 98.340 Law and Literature (3) - An introduction to law and literature, both as an approach to the reading of legal texts and as a means of addressing issues in law, justice and morality as portrayed in works of fiction and other narratives. Modules include slavery, abortion, the death penalty, Native American law and literature and international law and literature.
- 98.407 International Legal Environment of Business (3) - Introduction to public and private international law as applied to the increasingly globalized business environment. Cases include: trade law; extraterritorial application of U.S. law; treaty law; U.S.-Japan structural impediments talks; the GATT; the European Community; multinational corporations; and environmental regulation. Prerequisite: 98.331 or consent of the instructor.
- 98.450 Legal Environment of Business (3) - Advanced coverage of topics in government regulation of business through administrative law, legislation and judicial intervention. May include issues in the law of corporate securities, antitrust, environmental regulations and other aspects of legal regulation of the competitive process. Prerequisites: 98.331 and Economics 40.212.
- 98.460 Employment Discrimination and Affirmative Action (3) - A survey of major federal laws that address equal opportunity in employment and focuses on types of job discrimination outlawed by Title VII of the 1964 Civil Rights Act. Legal and ethical issues relating to affirmative action programs are discussed, as are state and local laws addressing employment discrimination.

Admissions

Campus Address: 10 Benjamin Franklin Hall

Telephone Number: (570) 389-4316

Fax Number: (570) 389-4741

TDD: (570) 389-4316

Director of Admissions: Christopher Keller

Office hours: 8 a.m. - 4:30 p.m., Monday through Friday

Admission Procedures

Complete and submit an application to the Office of Admissions, with a \$30 nonrefundable application fee payable to Bloomsburg University. Freshman candidates should begin the application process early in their senior year of high school, prior to Dec. 1 for the fall semester. Candidates for the spring semester should submit application materials by Oct. 1. Final dates for receiving applications in the Admissions Office for an entry period are subject to change without notice.

Applicants also need:

An official secondary school transcript requested from and sent by a high school guidance counselor directly to the Director of Admissions.

Results of the Scholastic Assessment Test (SAT) or the American College Test (ACT). The applicant is responsible for taking the test and requesting that the scores be forwarded directly from the testing service to Bloomsburg University. A photostatic copy of the student's SAT or ACT results on an official secondary school transcript is acceptable. No other standardized test serves as a substitute for the SAT or ACT.

Entrance Standards and Notification Procedures

The university does not prescribe fixed secondary school course requirements for admission but

does, however, strongly encourage all students to take a college preparatory program in secondary school. Admission to Bloomsburg University is based on an applicant's academic and personal qualifications. Decisions are reached without regard to race, color, creed, national origin, sex or disability. Acceptance is determined by the Admissions Committee upon evaluation of secondary school preparation, scores on the SAT or ACT, personal characteristics and institutional capacity.

The majority of notifications are made during December, January and February.

Incoming fall freshmen must submit a partially nonrefundable advance deposit of \$200 for the basic fee and housing by March 1 to secure enrollment at the university. Extensions of the March 1 deadline deposit may be requested in writing to the director of admissions prior to the March 1 deadline.

Health Record

An applicant offered admission must submit a medical examination report form prior to enrollment. Applicants get the appropriate examination report form upon receipt of advance deposits. Final permission to enroll is contingent upon a favorable review of the applicant's medical history by a university physician.

Early Decision Plan

The early decision plan at Bloomsburg University is an option for students who have decided that their first choice college is Bloomsburg. Students applying for Early Decision should submit a formal application for admission by Nov. 15 of their senior year in high school. Included should be the student's high school transcript and test scores on

the SAT or ACT. Decisions are based on grades and test scores through the junior year. Students accepted under the early decision plan will be guaranteed:

- Priority financial aid estimation and/or scholarship packaging
- Priority housing assignments

A letter requesting nonrefundable deposit will be sent to all students admitted into the early decision program. Those not accepted as part of the early decision plan will be evaluated under regular admissions procedures.

Early Admission

Outstanding students may be considered for admission before secondary school graduation. In addition to strong achievement and high aptitude, applicants for early admission must have the endorsement of their secondary school to receive consideration. College credit earned may apply toward the requirements for a secondary school diploma. Students interested in early admission must arrange an interview with the Director of Admissions. An official secondary school transcript and results of the SAT or ACT should be submitted with the application for admission.

Act 101 and Educational Opportunity Programs

These programs equalize educational opportunity for students regardless of their economic background or status. Anyone with a secondary school diploma or certificate of equivalency is eligible to apply for admission to these programs. Non-traditional criteria are applied in predicting the potential success of an applicant when it appears that the environmental background may have adversely affected grades and/or standardized test scores. The Director of Admissions may require an applicant for these programs to file supplementary information as needed for proper consideration.

Most new students are expected to participate in a summer program prior to the first semester of their attendance, where special assistance in tutoring and counseling is given to address specific academic, financial and social needs. Permission to be exempted from this requirement can only be granted by the director of these programs.

Send inquiries to the Director of ACT 101/EOP or the Director of Admissions. (*See Developmental Instruction.*)

Summer Freshman Program

Due to the competitive nature of admissions at Bloomsburg University, not all students who can be successful are offered Fall admissions. Approximately 250 students re enrolled at Bloomsburg University as summer freshmen each year. These candidates generally do not meet all the admissions criteria for fall admission. They may be lacking in one or more of the four areas of consideration: high school class rank, academic subjects, grade average and/or SAT scores.

Summer freshmen attend classes for nine weeks in the summer, during which they take three college courses of three credits each, a one-credit university seminar and a one credit study skills course. Students also have the opportunity to enroll in either a one-credit health and physical education or applied music course. These courses are part of the schedule packages prepared for summer freshmen.

Summer freshmen who complete the summer program (9-12 credits) with at least a 1.25 GPA may register for either the fall or January semester. **The semester the summer freshman is eligible to return to Bloomsburg University is indicated on the offer of admission letter.** Any summer freshman student who earns less than a 1.25 GPA is ineligible to return to Bloomsburg University.

Summer freshmen enter the university as undeclared/general studies majors.

Transfer Students

An applicant who previously attended or at the time of application is enrolled in another college or university is a transfer applicant. Transfer admission occurs three times during the year: fall, spring and summer. Applications for the fall semester and summer sessions should be complete and on file in the Admissions Office prior to March 15. Applications for the spring semester must be complete and on file by Oct. 15.

Requirements necessary to make a file complete for a transfer candidate include: an official secondary school transcript or a GED (General Equivalency Diploma); official transcripts from all postsecondary schools attended; and the \$30 application fee. Scholastic Assessment Test (SAT) or American College Test (ACT) results must be submitted if the applicant has not completed 24 or more credits at a post-secondary institution. Official college transcripts from each school attended should be sent to the Director of Admissions re-

ardless of whether or not credit was earned at the other institution(s).

A transfer student may be considered for admission if certified as holding good standing in the college last attended and having an overall Grade Point Average (GPA) of 2.0 or better on a 4.0 system.

The degree programs in adult health, nursing or education require students to have a minimum cumulative GPA of 2.50 for entrance to the major. These requirements are subject to change.

Transfer applicants who have completed 30 semester hours at an institution of higher education should select a major upon entering the university.

Academic Passport for Transfer Students - Students attending any of the Pennsylvania Community Colleges who complete an AA or AS degree are considered Academic Passport transfer students. Academic Passport students are guaranteed admission to the State System of Higher Education universities provided they have a cumulative GPA of 2.0 or higher. This is not a guarantee for admission to all academic programs. Students holding an Academic Passport will receive transfer credit for all course work in which a passing grade was achieved, including grades of "D", "D+" and "C-." The only exception for the Academic Passport student is where the policy in an academic program requires a "C" or above from all students to meet the degree requirements.

Pennsylvania community college students who have not earned their AA or AS and students attending any of the State System of Higher Education Universities in Pennsylvania will also have course with the grades of "D", "D+" and "C-" transfer provided the applicant's GPA is above 2.0. The Passport student should not be required to repeat courses successfully completed at the community college.

Transfer Credit for non-academic passport holders - Credits are deemed transferable if earned with a grade of C (2.0/4.0) or above at an institution that is accredited by the Middle States Association of Colleges and Schools/Commission on Higher Education or its regional equivalent providing Bloomsburg University has equivalent courses. Students are informed of the tentative number of credits that may be transferred in their offer of admission letter. Official transfer evaluations are completed after the student pays the advanced deposits. These transfer credit evaluations are then re-

viewed by the department chairperson who renders final approval of the evaluation. A maximum of 64 credits may be transferred from a regionally accredited two-year college.

Review of transfer applications is done on a rolling basis, with the exception of nursing applicants whose files are reviewed by the Student Admission, Progression and Retention Committee of the School of Health Sciences.

An orientation for transfer students is held prior to their enrollment. Students are notified by the Orientation Office concerning specific information.

Readmission

Students failing to register for the next semester must apply for readmission. Nondegree students may continue to register without readmission provided their next registration is within four semesters of their last enrollment. It is suggested that students apply early for readmission.

Readmitted students are responsible for the graduation requirements and academic policies that exist at the time of their reentrance.

The Director of Admissions may require an applicant for readmission to file a letter containing such supplementary information as is needed for proper consideration.

Students under academic dismissal are ineligible for readmission for one calendar year. They should present evidence of successful achievement at another college or university as part of their application for readmission.

Readmitted students who were formally dismissed for academic deficiency have two final grading periods in which to regain minimum academic progress or good standing. If dismissed the second time, these students may not attend the university for additional degree or nondegree credit study.

Temporary Withdrawal/Leave of Absence

A student may request a temporary withdrawal for a specified period by securing the appropriate forms at the Office of the Registrar. To be eligible for a temporary withdrawal, the student must submit completed forms to the Office of Admissions for processing. A student must be in academic good standing or making minimal progress toward good standing and must request the temporary withdrawal prior to the registration date of the intended period of absence.

A student on a temporary withdrawal is assured a place in the semester designated for return provided the instructions that are part of the temporary withdrawal agreement are fulfilled and advance deposits are submitted at the time designated by the Director of Admissions.

A student who returns from a temporary withdrawal of a calendar year or less in duration is responsible for the graduation requirements and academic policies that applied at the time the temporary withdrawal was requested. A student who returns from a temporary withdrawal of more than one calendar year duration must satisfy the graduation requirements and academic policies which exist at the time of return and is then classified as a readmitted student.

Second Baccalaureate Degree

Application materials and instructions for obtaining a second bachelor's degree at Bloomsburg University may be secured from the Office of Admissions. There is an application fee of \$30. To qualify, an applicant must hold a bachelor's degree from a regionally-accredited college or university.

This second degree track requires a student to earn a minimum of 30 semester hours in undergraduate courses while in residence at the university. All curriculum requirements for the second degree must be satisfied and free elective credit taken, if necessary, to complete the minimum of 30 semester hours.

If there is a replication of a required course(s) in the two baccalaureate programs, the course(s) cannot be applied as part of the 30-semester-hour requirement for completion of the second degree.

The applicant must provide the department chairperson from the discipline they wish to pursue, with a copy of their official college transcript and a second degree application form. Pending a favorable review of the applicant's academic credentials, the chairperson signs the application and forwards it and the official transcript to the Admissions Office. The student will then receive official notification of acceptance from the director of admissions.

International Students

Candidates for admission who are not a citizen or permanent resident of the United States should complete the international student application and submit the \$30 application fee six (6) months prior to the semester in which they wish to enroll at

Bloomsburg University. Applications for the semester that begins in late August should be completed and on file in the admissions office by March 1 and for the semester that begins in January prior to September 1.

A notarized copy of the official secondary/high school transcript must be submitted. English translations must be provided and notarized to verify authenticity.

Additionally, international students seeking admission must submit a certified bank statement verifying the student's ability to meet all the expenses of studying and living in the United States. Students unable to finance their education and living expenses in the United States will *not* be admitted to the university unless they qualify for a tuition fee waiver. There are basically no scholarships available for international students. These students are not eligible for grants or loans provided by the United States government. A limited number of tuition fee waivers are available on a financial need basis. Information about the tuition fee waivers may be obtained from the Bloomsburg University International Education Office.

Results of the Test of English as a Foreign Language (TOEFL) must be submitted by *all* applicants whose native language is not English. The results of the paper-based TOEFL must be *500 or higher* and the computer-based TOEFL score must be *173 or higher* to be considered for admission.

Transfer students must submit a notarized English translation of their official secondary or high school transcript. Transfer applicants are required to have their official college/university transcript evaluated by an outside evaluation service. The application for this service is enclosed with the admissions application. It is the student's responsibility to pay for the service provided by the evaluation agency. Applications will not be considered without these credentials.

Certificates of eligibility for a student visa (I-20 or IAP-66) will be issued upon receipt of payment of advance deposits. The certificate of eligibility is issued by the Bloomsburg University director of international education.

Bloomsburg University requires all students to have appropriate accident and sickness insurance coverage. The annual cost is approximately \$400.

Campus Visits

Group information sessions are held regularly on campus and are followed by a guided tour of the campus. Arrangements can be made to attend a group information session by contacting the Office of Admissions at (570) 389-4316.

Four Saturday open house programs are held in October, November, February and April in Mitrani Hall, Haas Center for the Arts, beginning at 9:30 a.m. Open House programs consist of a general meeting with admissions staff and administrative personnel, a question-and-answer session, a campus tour, lunch (at a nominal cost) and meetings with faculty from various academic departments. Participation in an open house day may be more meaningful than a group information session because

prospective students have the opportunity to meet directly with members of the university faculty.

Off-campus Visits

Each year, representatives from the Office of Admissions visit secondary schools and community colleges throughout Pennsylvania and in neighboring states. They also participate in approximately 100 college night/career day programs including National College Fair programs in Philadelphia, Pittsburgh and New Jersey. Prospective applicants should check with their school or community college counselors to learn if a Bloomsburg University admissions representative will visit their institution or a nearby college night program.

Academic Support Services

Academic Advisement

Incoming students who indicate and are offered admission to their preferred curriculum are assigned to faculty advisers who specialize in advisement in these areas. Assignments to advisers are made by the chairperson in the appropriate academic department.

Applicants for admission who are undecided about their curriculum state undeclared on the application instead of specifying a curriculum. These applicants are considered general studies students and will declare a specific major at the appropriate time. These students are advised or assigned to advisers by the coordinator for academic advisement.

Students with questions or problems should seek assistance from the Office of Academic Advisement, 12 Benjamin Franklin Hall, (570) 389-4271.

Accommodative Services

Bloomsburg University is committed to embracing diversity in the community and to the individual rights of each member of that community. In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA), Bloomsburg University seeks to provide students with disabilities support services and other reasonable and effective accommodations to ensure equal access to university programs and activities. Accommodations include, but are not limited to, advance registration, sign language interpreters oral interpreters, note-taking support, access to adaptive technology, accommodative testing, advocacy within and outside of the campus and coordination of support activities with external agencies such as the Office of Vocational Rehabilitation. The student is responsible for requesting accommoda-

tions in a timely manner. Because planning is a critical step in the provision of an accommodation, students are encouraged to contact the accommodative services office prior to their orientation visit to discuss anticipated needs. Individuals who seek additional information about accommodations and services at Bloomsburg University are invited to contact the accommodative services office to arrange a campus interview. The office is located in 12 Benjamin Franklin Hall, (570) 389-4491 (voice or TDD).

Act 101/EOP

Program Director: Irvin Wright
Part-Time Program: Anthony Sylvester
Telephone: (570) 389-4492, (570) 389-4835

Act 101/EOP provides access and support to help equalize educational opportunities for students who have been traditionally under-represented in higher education.

The Pre-College Summer - Students admitted to the university through Act 101/EOP must participate in placement testing and successfully complete a six-week, pre-college summer program. Faculty assess each student's potential for success every week during the summer program. Criteria include grades, attitude and attendance. Attendance at the university in the fall is guaranteed only if these criteria are met.

Admissions Guidelines - The highest priority for admission is reserved for applicants with a 700 or higher on the SAT, academic ranking in the upper half of their high school class and a 94 percent or better attendance rate in high school. Students applying for admission must also submit a recommendation from a counselor or teacher describing how

the student would benefit from being admitted to the program. Students admitted to the program must demonstrate potential for success at the university.

Supportive Services - Supportive services help integrate students into the college environment and achieve their potential for success. These services include developmental courses to enhance reading, writing and mathematical skills. Students also receive academic advising, counseling and tutoring. Some of these services may be required. Others may be recommended based on a student's readiness for college.

Academic Progress - Some students may be enrolled in developmental courses during the summer and perhaps during their first year at the university. These developmental courses do not count for graduation credit. These courses are taken in addition to the required 128 credits for graduation. Students in Act 101/EOP generally take slightly more than four years to graduate. The Act 101/EOP director receives mid-term grade reports for students until they have completed 64 hours of study and have earned a grade point average of 2.3 or better on a 4.0 scale. Act 101/EOP staff members retain a direct responsibility for the academic progress of all students admitted to the university through Act 101/EOP.

Financial Aid - Financial aid is available for eligible students. Financial aid advising is provided by the Act 101/EOP staff and supplements efforts of the university's financial aid office.

Student Profile - Approximately 450 students are enrolled in Act 101/EOP at the university. About half represent minorities, 60 percent are women and 20 percent are older than typical college freshmen. They come from urban and rural environments. Students share two common characteristics. They do not match the usual admissions profile and they possess a financial, cultural, social or education disadvantage as defined by state or university program guidelines. They may have physical disabilities.

The Part-Time Program - The Act 101/EOP part-time program is a special admissions opportunity for students who are economically and educationally disadvantaged. Act 101 helps students overcome deficiencies in educational backgrounds and assists students in transition to college. Supportive services are available to help part-time students meet the challenges of academic life at the univer-

sity. To qualify for admission to the part-time program, applicants must have an adjusted gross income of \$18,900 or below and have earned a high school or equivalency diploma.

International Education

The international education program advises international students and coordinates university-wide efforts to provide study, research and teaching abroad opportunities for students and faculty. Participants experience a gamut of new cultural experiences that inspire fresh perspectives on various relationships. Opportunities are provided to study for a semester, an academic year or a summer at a foreign institution. In recent years, Bloomsburg students have spent part of their undergraduate years in Scotland, England, Ireland, The Netherlands, France, Germany, Italy, Austria, Russia, Spain, Nigeria, Mexico, Ecuador, Brazil, Japan, China and India.

Education majors have the opportunity to complete their student teaching in a foreign country, while adding an international dimension to their professional development.

The Office of International Education is located in Lower Luzerne Residence Hall.

Student Support Services

Student Support Services is a federally-funded program serving a select group of students who have completed the application process and have met eligibility criteria established by the government. Program students have access to free professional tutoring by individuals with master's degrees in their fields. Other services available to participants include academic advisement and advocacy, mentoring, individual and group counseling as needed and personal enrichment opportunities through a variety of optional activities. These include student/staff socials, free tickets and/or transportation to various concerts and programs on or off campus and periodic special topic workshops and programs.

Over the 30-year history of Student Support Services nationwide, the grade point averages and graduation rates of participants have proven to be consistently higher than those of the general college population. These statistics are indicative not only of the quality of services provided, but also the level of commitment made by students who become involved in such an activity.

For additional information or to complete an application, visit the Student Support Services office, just off the main lobby in Lower Luzerne Hall.

Upward Bound

The university presents the opportunity for eighth, ninth and tenth graders from affiliated high schools to enroll in its Upward Bound program. Participation may continue through the summer after high school graduation. The program, open to students meeting certain academic and financial requirements, is geared to promote self-confidence and to make students better informed and, thus, better prepared for life beyond high school. Upward Bound's ultimate goal for its students is completion of higher education.

The program consists of two parts. In the first segment, students spend two hours a week at their own high schools involved in academic experiences which supplement their regular scholastic program and improve their academic performance. The program's counseling service provides close individual contact for discussing career, vocational and personal interests within the high school setting. The second component of Upward Bound is a six-week summer residential experience on the Bloomsburg University campus. This segment provides concentrated academic work plus planned recreational, social and cultural experiences, both on and off the campus.

Office of Adult Advisement

13 Benjamin Franklin Hall

Telephone: (570) 389-4003

Fax: (570) 389-4640

Coordinator, e-mail: Patricia Lenhart, lenh@husky.bloomu.edu

Office hours: Monday, Thursday: 8:00 a.m. to 7:00 p.m.;

Tuesday, Wednesday, Friday: 8:00 a.m. to 4:30 p.m.

About the Service

The Office of Adult Advisement (OAA) encourages, informs and supports returning adult learners, many of who are busy working and raising a family and considering starting or returning to college. The OAA also serves as the official non-degree undergraduate admissions and scheduling center and helps arrange evening and off-campus courses for the convenience of non-degree and nontraditional students. The Coordinator of Adult Advisement is the academic advisor for all non-degree students without a bachelor's degree and acts as an advocate for the concerns and issues of these stu-

dents, many of whom go on to earn degrees.

There are presently more than 1500 adult learners enrolled at Bloomsburg University. Many are in their middle and upper twenties and there are a number of students in their thirties, forties and fifties. Retired individuals are taking classes and even working toward degrees. All adult learners can join university clubs and organizations, go to plays and concerts on campus and develop computer skills.

Degree Students and Non-Degree Students

Non-degree students are in the same classes with the same professors as degree students, pay the same tuition and fees and receive credit for courses they pass. These credits will count toward a degree at Bloomsburg.

The primary distinction between the degree and non-degree program is the admission process. Students that don't qualify for admission into a degree program can usually be admitted as non-degree. Other differences between degree and non-degree students include (but are not limited to) potential for financial aid, the scheduling process and semester credit limits.

Types of Undergraduate Non-Degree Students - There are *eight categories* of undergraduate non-degree students. All but two categories require completion of high school or a GED.

Category 1: Any student that wants to take classes on a part-time basis and does not have a bachelor's degree. Most non-degree students are in this category.

Category 2: Any student enrolled in another college or university who wants to take one or more classes here and transfer credits to their home institution. Many of our non-degree students over the summer are in this category. Make prior arrangements with your college or university regarding the procedures and approval for transferring credits from Bloomsburg there. Failure to provide an official high school transcript or GED will prevent the student from receiving a Bloomsburg transcript.

Category 3: Any senior in high school that wants to take one or more classes at the university but does not yet have

a high school diploma, with the necessary approval from a guidance counselor and teachers.

- Category 4: Any student with an earned bachelor's degree who desires to take one or more undergraduate courses. Some students in this category are taking undergraduate deficiencies as preparation for graduate programs.
- Category 5: Any student with previous college experience who needs to raise their GPA to qualify for degree re-admission. Former Bloomsburg students that were academically dismissed do not qualify unless at least one year has passed (and these students may qualify for degree re-admission instead of non-degree).
- Category 6: Students with an earned bachelor's degree (GPA of at least 2.50) that want to receive Level I or Level II teacher certification. Certification is available in Secondary, Elementary, Early Childhood, Special and Business Education and also in Studies in Hearing Loss.
- Category 7: Senior citizens that are Pennsylvania residents and 60 years of age or over. Tuition is free, although these students must pay for fees and books. Students are admitted to classes on a seat-available basis. This category does not *require* high school graduation or a GED.
- Category 8: Any student that wants to complete one of seven certificate programs. Certificates can be earned in Community Services, Community Recreation Leader, Environmental Planning, Gerontology, Public Administration,

Music and Theatre-Music. NOTE: Students must pass every course taken and maintain a GPA of at least 2.00.

Non-Degree Application Process

Contact the Coordinator of the OAA at (570) 389-4003 or e-mail lenh@husky.bloomu.edu

Complete and sign the one-page non-degree application form available from the OAA. Be sure to include the correct category on the form. Ask us if you're not sure Category 1, 2, 4, 5, 7 and 8 students can mail, hand-deliver or fax the application to the OAA. There is no fee.

An official high school transcript or G.E.D. score is required for admission. Contact your high school or school district and have it send your official transcript directly to the OAA.

The office can't accept a transcript delivered by a student, unless it's in a sealed envelope with a signature from a high school representative over the seal. Those with 24 credits or more from an accredited college or university should submit an official transcript from that institution in place of a high school transcript.

Those whose name has changed since high school should ask the high school to use their current name on information it provides.

If an official transcript is already here at Bloomsburg University, but in a different office, let the office know.

Students are normally accepted quickly for the current semester and are notified by an acceptance letter

Category 3 and 6 students should mail or hand-deliver their application to the Admissions Office, Room 10, Benjamin Franklin Hall. All the necessary credentials should be included.

Non-Degree To Degree Process - Non-degree students 22 years of age and older who never took the SAT and wish to become degree students must complete 16 credits at Bloomsburg. Both Composition I (a writing course) and the University Seminar (an introduction to college course) are required. After the 16 credits are completed with a GPA of at least 2.40, the student must submit a completed degree application and processing fee to the Admissions Office. Pass-fail and CLEP courses can't be included in the 16 credits. Non-degrees under the age of 22 must have completed at least 24 credits.

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Definition of Full-time and Part-time Students

An individual who is enrolled for a minimum of 12 semester hours is classified as a full-time student. One who is enrolled for fewer than 12 semester hours is a part-time student. Where the word “student” appears without clarification either by word or context in this document, full-time degree student is implied. Students should be aware that failure to maintain a certain number of semester hours per year may affect eligibility for financial aid, athletics, et al.

Semester Hour

A semester hour is ordinarily defined as the credit for one weekly period of 50 minutes in lecture, discussion or recitation for one semester. In some cases, as in laboratory, studio or internship, there may not be a one-to-one correspondence between experimental time and credit.

Residence Requirements

At least 32 of the last 64 semester hours credited toward a bachelor's degree must be taken in residence at the university. Former Bloomsburg students who are certified for teaching by completing two or three years of college work and who are candidates for the Bachelor of Science in Education must complete at least one half of the remaining work for the degree program in residence. Residence credit is given for courses by Bloomsburg University for college credit.

Class Standing

A student has academic standing as a freshman until he or she has 31 semester hours, as a sophomore from 32 to 63 semester hours, as a junior from 64 to 95 semester hours and as a senior after 96 or more semester hours of credit. Transfer credit, if any, is included in these figures.

For purposes of social and housing privileges and regulations, the definitions of class standing are as follows: freshman, to and including 29 semester hours; sophomore, 30 to 59 semester hours; junior, 60 to 89 semester hours; senior, 90 or more semester hours or 6 semesters as a full-time student.

Graduation Requirements

Graduation requires the successful completion of at least 128 semester hours to include completion of the curriculum of an approved major program,

completion of the general education requirements and an average of 2.0 in all courses required by the major program and a cumulative GPA of at least 2.0. The student must make a formal application for graduation at the Office of the Registrar in Benjamin Franklin Hall by the deadlines announced in the class schedule.

The last 64 semester hours of credit toward graduation must be in courses taken in a four-year, degree-granting institution accredited by one of the regional accrediting institutions. At least 32 of the last 64 semester hours credited toward a baccalaureate degree must be Bloomsburg University courses. Exceptions to this policy will be made only by a college dean with the recommendation of the appropriate chairperson. All financial obligations to the university must have been cleared.

Double Majors Across Colleges

Students electing to major in two departments must have a major adviser in each department, meet all of the major requirements of each department and all of the general education requirement. Double majors in some departments may require more than the minimum of 128 credits for graduation.

Honors

The Latin designations summa cum laude, magna cum laude and cum laude are used to identify honor graduates.

Graduating seniors having cumulative GPAs between 3.95 and 4.00 are designated summa cum laude.

All those graduating seniors having cumulative GPAs between 3.75 and 3.94 are designated as magna cum laude.

All those graduating seniors having cumulative GPAs between 3.50 and 3.74 are designated as cum laude.

Honors for recognition at the commencement ceremony will be as of the last previous semester, while honors for transcripts and diplomas will be as of the end of the final semester.

A student must have completed 48 semester hours in residence at Bloomsburg University in order to be considered for academic honors at commencement.

Multiple Degrees

A student can be awarded only one baccalaureate degree at a time. The degree to be awarded must

be selected prior to the last semester. A student completing an additional major in another degree program will have the fact noted on the transcript.

Associate Degree

Except as provided otherwise in this section, all of the academic policies and practice apply to the associate degree. With respect to advanced placement, pass-fail, repeating courses, course withdrawal and residence requirements, the policy is limited to 50 percent of the number of courses or credits indicated.

Normal Load and Overload

The normal course load of a student in any semester is 16 semester hours. A student in good standing is limited to 18 semester hours, unless he or she receives permission for an overload by his or her academic adviser. A quality point average (GPA) of 3.0 or higher is required of the student before permission can be granted for an overload. If the GPA is less than 3.0, then approval of the department chairperson is required.

A student who is making minimum progress toward academic good standing or who is on academic probation may schedule no more than 16 semester hours. (See the section on Academic Probation.) A student who has been reinstated upon appeal of academic dismissal is limited to scheduling 13 semester hours. (See the section on Appeals.)

Auditing of Courses

A full-time student who is enrolled for less than 17 hours of coursework may, with consent of the appropriate dean and subject to fees as stated in the section on Fees, register for one course as an auditor. If the registrant attends at least three-fourths of the regular class meetings, a V will be reported by the instructor and the course will be entered on the academic record without credit. No assignments are made to an auditor and no papers or examinations are accepted by the instructor for grading or recording either during the period of enrollment or subsequent thereto. An auditor may not participate in laboratory or studio work if such work is part of the course audited.

A part-time student may register as an auditor subject to the provision that when computing the fee paid by the student, the course audited will be counted the same as if it were taken for credit. Individuals who are not enrolled as students may apply for audit privileges through the dean of the School

of Continuing and Distance Education. Acceptance depends upon such factors as space in class and educational background.

Graduate Courses in the Senior Year

Seniors needing fewer than 18 semester hours of coursework to satisfy requirements for a baccalaureate degree may, with approval of a department chairperson, apply to the assistant vice president for graduate studies and research in the School of Graduate Studies for permission to supplement undergraduate courses with graduate courses. Credit for graduate courses is awarded upon verification of completion of the student's undergraduate degree.

Class Attendance Policy

Regular classroom attendance is expected of all students. A student will be afforded reasonable assistance by a faculty member when coursework is missed for such reasons as:

- Personal illness,
- Death or critical illness in the immediate family,
- Participation in a university-sponsored cocurricular activity.

In the latter instance, mutually satisfactory arrangements for assistance must be made by the student when the activity is announced.

The instructor is not required to provide make-up examinations or to review class work missed as a result of unauthorized absences.

A faculty member with departmental approval may adopt a reasonable, alternative policy if class members are provided that policy in writing during the first week of classes.

Student Course Requirements and Progress Information

Within the first week of classes each semester, teaching faculty must distribute in writing at least the following information: procedures for determining each letter grade, any relationship of class attendance to the course, any other course requirements, weighted average of requirements for grade computation and procedures for making up tests or other work missed through excused absence.

Faculty may post student grades providing a student has given written permission; the grades must not identify the student. Using social security numbers or parts of social security numbers is illegal. If grades are posted, each student should be given

unique identifier which is not consistent to student names listed in alphabetical order.

At any time during the semester, teaching faculty shall be prepared to inform students of their academic progress should the student request this.

At the end of a semester or summer term, the final grade of each course is recorded on the student's permanent record; a copy of the semester grades is sent to the student at his/her home address or another address designated by the student.

Change of Area of Study (Major)

A student who wishes to change from one area of study to another must file a request to do so in the Office of Academic Advisement. Permission to enter the new area of study may require the written approval of the department chairperson in which it is offered. In this case, approval may depend on overall grade point average, available space and recommendations from departmental committees.

Course Repeat Policy

A maximum of four courses (not more than 14 semester hours) in which grades of C-, D+, D or E have been recorded may be repeated. The initial grade remains on the transcript and is part of the student's permanent record. Quality points are awarded for the grade of the repeated course only. The grade of the repeated course is part of the permanent record and is used to calculate the student's quality point average. Multiple repeats of the same course are considered as one repeat. A course taken at the university from which a grade of C-, D+, D or E has been earned and repeated at another accredited institution of higher education is included in the permitted maximum number of repeats.

Credit by Examination

A student may receive a maximum of 64 semester hours of credit by examination or experiential learning. Credit may be awarded for successful completion of institutional examinations and/or approved external examinations.

A student may petition for the privilege of establishing credit in a course or courses listed in the undergraduate catalog through a comprehensive examination instead of through registration and class attendance or through independent study of the course content.

A student may not petition for an examination in a course audited, nor in a course from which a grade has been recorded.

A student must present evidence of equivalent experience if the course involves laboratory or studio work.

The student's petition must be approved in sequence by the department chairperson and the dean of the college.

An examination committee must be appointed by the department chairperson and approved by the dean of the college. Unless the course is an advanced course which is taught by only one member of the faculty, the examination committee must include at least two faculty members.

The examination must cover the course syllabus in a comprehensive manner. Suitable standardized examinations may be used. The examination must be written or, if oral, subject to transcription. Where skill, as in keyboarding or use of applications software, is a course requirement, the written and oral aspects must be supplemented by a demonstration of skill. A copy of the completed approval form must be placed in the student's advisement file and the original forwarded to the Office of the Registrar.

A fee is charged for courses challenged by institutional examination taken for credit, regardless of the number of credits awarded for that course. Upon receipt of approval, this fee is payable at the university Business Office. Evidence of payment must be presented to the department before the examination can be administered.

If the student passes the examination, the grade of "P" is assigned for the course. If he/she fails, no record is made. This course does not count in the student's normal quota of pass-fail courses.

Suitable adaptations of the above procedures may be used to validate transfer courses taken in non-accredited colleges. No fee is charged for examination to validate such credit. Examinations may be based upon the syllabi of the courses taken in the previous institution or, in case the student wishes to establish equivalency with courses in this university, upon the syllabi of courses offered in this institution.

The university recognizes two external examination programs: the College Level Examination Program (CLEP) and the Advanced Placement Program (AP) of the College Board.

Credit by AP Examinations - The university will award credit for AP Exams upon receipt of verification of a score of 3, 4 or 5 by the Office of the Registrar.

Credit by CLEP Examinations - The university will award credit for CLEP Examinations upon receipt and verification of a score at or above the 50th percentile by the Office of the Registrar. Minimum scores for awarding credit and the amount of the credit granted can be secured from the Office of the Registrar. CLEP General Examinations must be taken before matriculating to Bloomsburg University. CLEP Subject Examinations may be taken anytime prior to graduation. Acceptance of credit for certain CLEP Examinations is subject to departmental approval.

Credit for Military Experience - Bloomsburg University may award credit for educational experiences of students earned while serving in the armed forces of the United States. The registrar makes a recommendation to the departmental chairperson of the student's major based upon the American Council on Education's Guide to the Evaluation of Educational Experiences in the Armed Forces. Recommendations are made provided the credit applies to the student's degree program. The final decision for granting credit resides with the departmental chairperson. The university will transfer two credits in 05.100 Physical Fitness for completing basic training in the armed forces of the United States.

Experiential Learning - In an effort to provide for those who have in the course of their life experience obtained knowledge and skills applicable to a college experience, the university provides the opportunity for experiential learning assessment. Through this process, life experiences are evaluated to determine their appropriateness and applicability for university credit. For details regarding this process, contact the Continuing and Distance Education at (570) 389-4420.

Academic Examination Policy

Faculty shall give examinations during the regularly scheduled classes of the semester. The faculty are responsible for determining the length, frequency, form and content of all examinations within the guidelines listed below. Final examinations shall be given where applicable only during the designated final examination week after the end of regularly scheduled classes and only at the design-

nated time and place according to the final examination schedule.

Faculty will distribute in writing the requirements for each course within the first week of each academic term. In these requirements, final examinations shall be worth no less than 20 percent nor more than 40 percent of the course grade. No single exam, paper, project or assignment shall have greater emphasis than the final examination. As a result of this condition, every course must use at least three evaluations for grading purposes.

Faculty will give final examinations, which are comprehensive in design, emphasizing subject matter presented over the entire term.

Faculty will return and/or permit students to review all unit tests, quizzes and other types of evaluations by the last regularly scheduled class in the term. In order to prevent an excessive build-up in the number of unit tests for each student during the last week of classes, faculty are advised to refrain from testing during that week.

A final examination schedule shall be prepared by the Office of the Registrar with consultation of the faculty, if necessary and approved by the provost and vice president for academic affairs. Regularly scheduled final examination periods will be 120 minutes in length. Part of the final examination week will include at least a one-day interval between the last full day of classes and the first day of scheduled examinations. This time will be designated as the reading period.

The following restrictions are imposed on the scheduling of activities during final examination week:

Faculty are not required to be available to students for conferences during final examination week.

No examinations will be scheduled during the reading period unless approved by the provost and vice president for academic affairs.

No extracurricular activities or faculty-administrative activities shall be scheduled except with the consent of the individuals involved.

The Andruss Library will remain open and other designated study areas will be made available during the final examination period with expanded hours when possible.

No student shall be required to take more than two final examinations in one day. If the student has a scheduling conflict during the final examination period resulting in an excessive number of final ex-

aminations scheduled for one day, the following procedure for rescheduling the final examination shall apply and be completed by at least two weeks before the end of regularly scheduled classes. The student should select two of the scheduled examinations to be taken during the designated time according to the following priority of choice:

- Courses offered by the major department,
- Additional required courses in the major program,
- Other courses.

Any exceptions to any of the scheduling restrictions cited above must be made on the basis of the following procedures:

In case of noncompliance with the provisions of this policy, the student has the recourse of proper grievance procedures as established by the university.

During summer sessions, the last class period of each course shall be designated as the final examination period with the time period for the examination not to exceed 80 minutes unless the arrangements have been made in advance so that they can be announced at the first meeting of the class. Except in unusual circumstances, classes in six-week sessions shall have the final examination on the last day of the course. Final examinations for courses scheduled in three-week sessions shall be held during the last of the two class periods scheduled for the last day. Classes in the nine-week sessions shall hold final examinations on the last scheduled class day with the period extended to 80 minutes for that class.

Faculty who wish to schedule quizzes, tests or examinations at times other than during their regularly scheduled class periods during the term may do so only if a make-up opportunity is made available to students. This opportunity must be scheduled at a time mutually acceptable to both student and faculty and may not conflict with the student's other scheduled classes. A faculty member shall not give an examination at a time other than during a regularly scheduled class period unless approval is first obtained from the majority of the faculty members of his/her academic department. Except for abnormal circumstances, this approval should be granted by the end of the first week of classes. Notification of this alternative arrangement shall be given to the appropriate college dean.

A faculty member who believes that the content of a course does not lend itself to a scheduled ex-

amination must obtain approval for an alternative arrangement from the majority of the members of his or her academic department and college dean. Notification of the approved arrangement shall be given to the Office of the Registrar. Except for abnormal circumstances, the approval and notification shall be made by the end of the first week of classes.

To change the requirement specifying that final examinations shall be worth no less than 20 percent nor more than 40 percent of the course grade, there must be agreement for the change by the faculty member(s) in charge of the class, a majority of the members of his or her academic department and the appropriate college dean. Except for abnormal circumstances, the approval and notification to students will be made by the end of the first week of classes. If approved, the change may remain in effect for the faculty member for the duration of this policy or until the course is resubmitted to the curriculum committee.

In order to change the time and place scheduled for a final examination, there must be agreement for the change by the faculty members(s) in charge of the class, 100 percent of the students in the class and the appropriate college dean. This change must be made by the middle of the semester.

Student opinion in this matter will be determined by secret ballot with the faculty member in charge of the vote. If for some reason a change is made in the time and date of a final examination that results in a student conflict, the faculty member will arrange to provide a make-up opportunity during the examination period.

The additional final examination(s) should be rescheduled with consultation of the relevant faculty on a mutually convenient time. Assistance in the rescheduling of examinations may come from such individuals as the student's adviser, department chairperson or academic dean.

Unless returned to the student, all graded final examinations must be available for student review for at least the next full semester following the final examination.

Grading Policies

Recording Grades - At the end of a semester or summer session, the final grade for each course is recorded on the student's permanent record; a copy of the semester's grades is sent to the student's

home address or another address designated by the student. Midsemester grades of D plus, D and E are reported to degree students with 32 and fewer semester hours earned. These grades are not permanently recorded.

Definition of Grades Grades given at Bloomsburg University, with their commensurate quality points, are as follows:

- A = 4.00 (superior attainment)
- A- = 3.67
- B+ = 3.33 (above average attainment)
- B = 3.00
- B- = 2.67
- C+ = 2.33
- C = 2.00 (average attainment)
- C- = 1.67
- D+ = 1.33
- D = 1.00 (minimum attainment)
- E = 0.00 (failure)

The grades given to each student for academic credit at Bloomsburg University are assigned by those faculty who are responsible for the course in which the student is enrolled.

Other Grades

I - Incomplete is a temporary grade given only when an instructor believes a student has been unable to complete course requirements due to circumstances beyond his/her control. Failure of a student to take the final examination or complete other course requirements without prior arrangement with the instructor for a legitimate excuse is not justification for a grade of I. When an instructor submits a grade of I to the registrar, it must be accompanied by a formal, written plan for the student to complete the course requirements and the appropriate letter grade that would be assigned if the plan were not completed by the student in the time specified. The plan for the student to complete the course requirements shall be prepared by the instructor with the acceptance of the student. Unless specifically stated in the written plan to the contrary, it is assumed that work will be completed prior to the end of the next regular semester. When the plan has been completed by the student, the instructor will recalculate the grade to be assigned for the course and submit this new grade to the registrar according to established procedures. A request for an extension of time to complete course requirements must be initiated by the student prior to the deadline of the plan on file in the Office of the Registrar. The student must present suitable

documentation to the instructor indicating that circumstances above and beyond individual control persist or new circumstances of that nature have developed. An extension of time will be granted only upon approval of the instructor and the dean of the appropriate college.

P - Passed. This grade is recorded when a student takes a course on a pass-fail basis and does work which would lead to a grade of D or higher. The grade of P also is recorded when a course is passed by proficiency examination and when a student receives a passing grade in a non-credit course or cocurricular activity such as musical ensembles, theater and forensics.

F - Failed This grade is recorded when a student takes a course on a pass-fail basis and does work which would lead to a grade of E. The grade of F also is recorded when a student receives a failing grade in a non-credit course for a cocurricular activity.

R - Research. This grade is assigned by the instructor only when a student has been unable to complete a research component of a course because the length of time for the research exceeds the end of semester and when a formal plan for completion of the research is filed with the instructor and the chairperson. Provisions for removal of the grade are the same as those for the grade of I. The instructor must submit the grade of R to the registrar along with the formal plan for completion of the research and the grade to be assigned to the student if the research is not completed satisfactorily in the time period stipulated. The plan for the student to complete the research shall be prepared by the instructor with the acceptance of the student. Unless specifically stated in the written plan to the contrary, it is assumed that the work will be completed prior to the end of the next regular semester. When the student has completed the plan, the instructor shall recalculate the grade to be assigned for the course and submit this new grade to the registrar according to established procedures.

V - Audit (See the section on Auditing of Courses)

X - No Grade Reported When this temporary grade is recorded, the provisions for determining academic honors, good standing, minimal progress and satisfactory progress are not applied until the grade of X is removed.

W - Withdrawn. (See the sections on Course Withdrawal and Withdrawal from the University)

Quality Points

Grade point values are assigned as follows:

Grade	Value Points
A	4.00
A-	3.67
B+	3.33
B	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
D+	1.33
D	1.00
E	0.00

Grade Point Average (GPA)

The Grade Point Average (GPA) is computed from the academic record of courses taken at Bloomsburg University in which grades of A through E were earned. The computation is executed by multiplying the number of semester hours for each course by the number of quality points for the grade in the course and adding the products, then dividing the sum obtained in the first step by the total number of semester hours represented by the courses.

A "semester GPA" is computed by including only the courses of a single semester. The "cumulative GPA" is computed by including all courses taken to date at Bloomsburg University. If a course is successfully repeated at another regionally accredited institution of higher education, the credits for a grade of D or E and the quality points for the D at Bloomsburg are deleted from the computation.

Change of Grade

After a grade of A through E has been reported to the Registrar's Office, it may be changed through the grievance process, to change a temporary grade to a final grade or to correct a computational or clerical error. A recommendation for change of grade due to a computational or clerical error must be made in writing by the instructor and approved by the department chairperson and the dean of the appropriate college. When a grade of I and R is changed, only the approval of the department chairperson is required.

Pass-Fail Policy

After attaining sophomore standing, a degree student may elect credit courses on a pass-fail basis

in accordance with the following rules:

A maximum of two courses (totaling not more than 8 semester hours) may be included as part of the minimum graduation requirement of 128 semester hours.

No more than one pass-fail course may be taken in any one semester.

A student may request to take a course on a pass-fail basis up until the close of the business day on the second Friday of the semester or on the first Wednesday of each summer session.

Courses taken on a pass-fail basis must be free electives; no required courses may be taken as pass-fail. Required courses are those courses used to satisfy the requisites for a major (including required cognate courses) or a minor or to comply with General Education requirements. The student must complete all course requirements within the General Education area before selecting another course from that area for pass-fail.

The instructor is not informed that the course is being taken on a pass-fail basis. Grades of A, B, C, D or E are translated into grades of P or F, with the grade of P recorded for a grade of D or higher and the grade of F recorded for E. Grades of P and F do not enter the computation of a GPA.

If subsequent to completion of a course on a pass-fail basis the student changes his/her major to one in which the original grade is required, the student may request that the chairperson of the academic department be notified of the actual letter grade earned.

A student who has received a grade of E in a course may not take it later on a pass-fail basis.

A student may revoke a decision to take a course on a pass-fail basis. The revocation must be completed by the close of the business day one week after the middle of the semester. This allows the pass-fail option to be used again.

Academic Good Standing

A student whose record at any final grading period shows a cumulative GPA of 2.00 or better is considered in academic good standing. (There are three final grading periods, fall semester, spring semester and the total summer session.)

Satisfactory Progress

Satisfactory progress is evaluated on the basis of two criteria:

A student's ability to earn a minimum of semester hours;

A student's ability to maintain a minimum GPA at the conclusion of each grading period.

Full-time, continuously enrolled undergraduate degree students, in order to maintain satisfactory progress toward the completion of a degree, must earn a minimum of 24 semester hours in any given 12-month period (including semester hours earned in developmental studies courses).

Part-time undergraduate degree students, in order to maintain satisfactory progress within any 12-month period, must earn half of all semester hours attempted for up to 8 semester hours; two-thirds of all credit hours attempted for 9 or more semester hours.

Note: Hours earned for a repeated undergraduate course are not counted twice.

To maintain satisfactory progress, a student must meet the following minimal requirements:

Total Hours Earned (Includes Grades of P and transfer credits) Cumulative GPA Required for Minimal Progress

1 - 16 semester hours	1.25 - 1.99
17 - 32 semester hours	1.65 - 1.99
33 - 48 semester hours	1.85 - 1.99
49 - 64 semester hours	1.95 - 1.99
65 or more semester hours	2.00

A student, while making minimal progress toward academic good standing, may schedule no more than 16 semester hours.

Dean's List

A full-time degree student whose semester GPA is 3.5 or higher in 12 or more semester hours of coursework will be named to the dean's list for that semester. Grades of P or F do not enter the computation of a student's GPA.

Academic Probation

An undergraduate student in one of the following categories is permitted to attend the university on academic probation for one additional final grading period (semester/summer) but limited to 16 semester hours:

An entering freshman whose GPA at the end of his/her first final grade period is at least 1.00 but less than 1.25;

A transfer student whose GPA at his/her first final grading period is less than, but within 0.25 of the cumulative GPA required for minimal progress;

A student who has been meeting the requirement for at least two consecutive grading periods immediately prior to a grading period in which his/

her cumulative GPA drops below but within 0.1 of the cumulative GPA required for minimal progress;

A full-time freshman or transfer student who was making minimal progress toward good standing at the end of the second grading period is below but within 0.1 of that required for minimal progress toward good standing;

A readmitted student who was formerly dismissed for academic deficiency who at the close of the first grading period has not regained minimal academic progress or good standing;

A full-time student who failed to earn 24 semester hours within one 12-month period;

A part-time student who failed to earn the minimum number of semester hours as prescribed above within the given semester.

Academic Dismissal

A student who at any final grading period is not in good standing, making minimal progress toward good standing or qualified to attend for a semester on academic probation is excluded from registration and his/her record is marked "academic dismissal." A student may be placed on "academic dismissal" without first being placed on academic probation.

A student under "academic dismissal" is ineligible to attend any courses offered for a period of at least one calendar year. Readmission regulations are stated in the section on Readmission.

Students failing to meet the minimal requirements of earned credit hours and/or GPA will be notified by the Office of the Registrar.

Appeals

A student under "academic dismissal" may petition the Academic Review Board for reinstatement. If reinstatement is granted, the conditions of reinstatement are indicated including an enrollment limit of 13 semester hours for a specified period of time. The student's record also is marked "committee reinstated." If the student does not attain good standing or is not making minimal progress toward academic good standing by the end of the period granted by the conditions of reinstatement, he or she is excluded from further registration and her/his record is again marked "academic dismissal."

If the student elects to attend the summer sessions immediately following reinstatement for a spring semester dismissal, then the entire summer session is considered the next grading period for which the student must attain minimal progress to-

ward good academic standing or good academic standing.

Petitions to the Academic Review Board must be in writing and must be mailed to the chairperson of the Academic Review Board within 48 hours of receipt of official notification of dismissal.

The Academic Review Board includes the deans of Arts and Sciences, Business and Professional Studies; director of Admissions; director of Academic Advisement; registrar; director of the Center for Counseling and Human Development; and the director of Student Standards. At the initiative of either the applicant or the Academic Review Board, the student's adviser may be invited to participate as a voting member in the consideration of the case.

In its evaluation of a petition for reinstatement, the board is charged to consider the degree to which external factors beyond the student's control temporarily prevented optimum academic achievement; the likelihood that these or similar factors would not recur if reinstatement were granted; the likelihood that the student, if reinstated, could complete his or her curriculum successfully within a reasonable extension of the normal four-year period; and an evaluation of the plan for attaining good standing proposed by the student. A decision of the Academic Review Board is final and not subject to review.

Majors, Minors, Certification, Career Concentration

Major - Each student must complete a major field of study for graduation. A major field of study is one of the approved degree programs prescribed by the major department or the college in which the student is enrolled. The specific course requirements for the options within each of the degree programs leading to the degrees are described elsewhere in this catalog.

Minor - A minor field of study consists of a minimum of 18 hours, at least 15 of which must be in the department offering the minor. While courses counting toward a minor may also fulfill general education or career concentration requirements, minor courses may not be in a student's major discipline and/or certification area. A minor offered in an academic discipline may have multiple advisement options. A student may choose to pursue minors in more than one academic discipline.

Career Concentration - Career concentrations are multidisciplinary advisement programs to help students select courses to develop appropriate skills and knowledge to prepare for entry and mobility in specific professions or careers. For example, career advisory committees exist in areas such as community services, public administration, gerontology and environmental management and planning.

Teacher Certifications - Certification is the result of completing a teacher education program approved by the Pennsylvania Department of Education as defined by Chapter 49 of the Regulations of the State Board of Education - Certification of Professional Personnel. Certificates are issued by the Pennsylvania Department of Education upon the recommendation of the university, based on its approved teacher education programs. Certification does not apply to certificates issued by the university for completion of a university program. Minors cannot lead to certification to teach or supervise in the public schools of Pennsylvania.

Double Majors Across Colleges - Students electing to major in two departments must have a major adviser in each department, meet all of the major requirements of each department and all of the general education requirements. Double majors in some departments may require more than the minimum 128 credits for graduation.

Change of Area of Study (Major) - A student who wishes to change from one area of study to another must file a request to do so in the Office of Academic Advisement.

Permission to enter the new area of study may require the written approval of the department chairperson in which it is offered. In this case, approval may depend upon such factors as overall grade point average, available space and recommendations from departmental committees. It also must be done by the student and while school is in session.

Scheduling Classes and Registration

Students enroll by scheduling classes, paying fees and registering on the first day of each semester or summer session. The scheduling of classes is usually completed during the prior semester. Classes in progress for the current semester always constitute an obligation to the student. All scheduling procedures for the next semester shall not conflict with this obligation. The dates for scheduling and advisement are announced by the registrar. To sched-

ule, students obtain a class schedule booklet, meet with their advisers and enter their schedules directly at designated computer terminals.

Seniors schedule classes first, followed by juniors, sophomores and freshmen. Fall freshmen have their schedules prepared in advance and are provided an opportunity for counseling and schedule changes during the orientation period. Second semester freshmen have a minimum load schedule prepared for them. All students should complete English Composition I and II (or equivalent) by the end of the sophomore year.

Students shall not be required to take part in cocurricular activities until after 3:30 p.m. Scheduled activities have precedence over unscheduled meets, practices, etc.

Students off campus at the time of scheduling due to student teaching, internships, etc., will prepare their proposed schedule, which will be processed at the appointed time with those of their peers. These students mail their class scheduling form to the registrar.

Students are billed according to number of semester hours scheduled.

Students must register in person on the first day of each semester or summer session according to the instructions for registration issued by the registrar. Special provisions for registration are available for non-degree students and part-time degree students. Students who do not register will have their class schedules dropped at the end of the first day of registration.

Students with unpaid fees, overdue library materials and other obligations due the university will be denied scheduling and registration privileges.

Students with disabilities should contact the Accommodative Services to make special arrangements for scheduling of classes and registration.

Change of Undergraduate Schedule

A student may change his/her semester/summer session schedule prior to the close of the fifth/third day of the semester/summer session. The consent of the adviser is not prerequisite to a change. Changes are subject to available space in classes to which the student proposes to transfer.

Schedule changes for all students in the Department of Developmental Instruction, with less than 32 earned credits, require the approval of the Department of Developmental Instruction. Schedule adjustments for students on academic probation, reinstatement and minimal academic progress re-

quire the approval of the academic adviser.

Late Registration

A student may register late until the close of business on the sixth day of the semester or the first Wednesday following a summer session registration. There is a special fee for late registration unless the student presents a medical excuse at the time of registration.

Evaluation of Undergraduate Transfer Credits

Evaluation of credit earned at other institutions for transfer students is recommended by the Admissions Office with final approval by the department chairperson. Credits for acceptable courses transfer. Grades, quality points and grade point averages do not transfer.

College-level courses completed with a grade of C (2.0/4.0) or above from a two-year or four-year institution, accredited by one of the regional accrediting agencies, are usually transferred for a degree student. Courses taken with a grade of less than C (2.0/4.0) will not transfer to Bloomsburg University unless earned at a Pennsylvania community college or a State System of Higher Education university and the cumulative GPA is 2.0 or higher.

Transfer credit will be deleted if the student subsequently registers for courses which substantially duplicate the content of courses accepted for transfer.

When the substitution of transfer credit for a required course is in question because the course was taken in an unaccredited institution or because the description of standards of the course are unclear, a student is entitled to an opportunity to validate the course by examination.

Correspondence courses are subject to acceptance to a total that does not exceed 15 semester hours if taken from a college or university accredited by one of the two regional accrediting agencies and acceptable by that institution toward graduation in a baccalaureate degree program.

Courses taken in another institution on a pass-fail basis are acceptable for transfer as free electives if they conform to the conditions for such grades at Bloomsburg University. A student applying to transfer courses must fulfill the provisions of the sections on residence requirement and graduation requirements.

Credits from other institutions accredited by one of the regional accrediting associations earned

by a Bloomsburg degree student will transfer provided approvals are obtained first from the student's adviser and department chairperson. An approval form can be obtained from the registrar. Upon completion of a course, it is the student's responsibility to provide the registrar with an official transcript. Course evaluations by department chairpersons must be secured before the registrar can record courses and credits on the student's academic record.

Evaluation of credit earned at other institutions by transfer students and by readmitted students who earned credit subsequent to their prior enrollment at Bloomsburg is made in the Admissions Office with guidelines provided by a department chairperson, cooperatively established by a college dean. A transfer student is issued an evaluation sheet that stipulates the requirements for graduation which remain to be met. This is subject to revision in the light of subsequent changes in the evaluation of the transcript.

Withdrawal from a Course

After the schedule change period and continuing until three weeks past mid-term, if a student withdraws from a course a grade of "W" will be recorded. As a means of notification of the instructor to the intent of the withdrawal, a student is required to obtain his/her instructor's signature on the withdrawal form.

No withdrawals will be permitted after the close of the work day three weeks after the middle day of the semester.

Prior to the last week of classes, in exceptional circumstances, for compelling, justified and documented reasons, the dean of the college in which the course is being taught may waive these restrictions. Poor academic performance will not constitute grounds for late withdrawal.

A limit of four (4) withdrawals during the degree program shall apply. (Withdrawal from the university is an exception.) Faculty are encouraged to include the University late withdrawal policy on the syllabus distributed to students at the beginning of the semester.

Withdrawal from the University

A student may withdraw from the university by completing a withdrawal form at the Office of the Registrar, 1 Benjamin Franklin Hall. Students withdrawing in absentia must submit a written request to the registrar.

When students withdraw during a semester, the grade of W is recorded for each of the courses on the student's schedule if the withdrawal occurs prior to the beginning of the final examination period. Students may not withdraw during the final examination period.

The effective date of a withdrawal is the date on which the student signs an official withdrawal form in the Office of the Registrar or the date on which the written request is received by the registrar for a student withdrawing in absentia.

Students failing to register for the next semester are classified as withdrawn and must apply for readmission. Non-degree students may continue to register without readmission provided their next registration is within four semesters of their last enrollment.

An individual who discontinues attendance without clearing all obligations to the university waives the right to a transcript and future readmission until all obligations are cleared.

Policies which cover reimbursements are stated in the subsection on Miscellaneous Fees.

In addition to withdrawing from the university, students may be absent for extended periods of time. The categories include:

Temporary Withdrawal/Leave of Absence is granted by the Admissions Office after a student completes the withdrawal procedures and when he/she files a temporary withdrawal/leave of absence form with the Admissions Office.

Clinical Experience absence is authorized by the registrar when a student is participating in the clinical year(s) of the medical technology and radiological technology programs. Students in this category are not charged fees by the university during the time of their clinical experience at a cooperating hospital.

Study Abroad absence is authorized by the registrar when a student is participating in a university-sanctioned exchange program with a cooperating university abroad. The student may be charged fees in accordance with the agreement with the cooperating university.

Completing Degree Elsewhere absence is authorized by the registrar when a student receives permission from his or her adviser and department chairperson to complete course requirements at an approved institution other than Bloomsburg University.

Mandatory Leave is recorded by the registrar when a student is required to leave the university

due to medical and/or psychological reasons or is suspended.

Academic Integrity Policy and Procedures

Bloomsburg University students are expected to be honest in all their academic work; this means they will not engage in any of the following acts:

Cheating on examinations including nonauthorized use of books or notes, use of crib sheets, copying from other student's papers, exchanging information with another student orally or by signals, obtaining a copy of the examination illegally and other similar activities.

Plagiarism in term papers, themes, essays, reports, take-home examinations, etc. (To plagiarize is to steal or use without acknowledgment the ideas, words, formulas, computer programs, etc. of another person.)

Falsifications including forging signatures, altering answers after they have been graded, insertion of answers after the fact, erasure of a grader's marking, etc.

A student found guilty of academic dishonesty may be subjected to a full range of penalties from reprimand to expulsion from the university. A faculty member who believes that a student has violated the academic integrity policy should use the following procedures to resolve the matter.

Reprimand the student orally or in writing. A faculty member also is authorized to assign a zero in the work tainted by the academic dishonesty and/or assign the grade of E for the entire course (A student may file a grievance against this action.); and/or

File a written complaint against the student with the Student-Faculty Judicial Board. The complaint must describe academic dishonesty that is alleged to have taken place and must request that the matter be shared by the board. All subsequent procedures shall follow those of the judicial system.

Diagnostic Testing Program Policy

This policy applies to testing that is not a part of course requirements.

Students will be selected for and administered placement tests prior to matriculation based upon their predicted freshman year grade point average (GPA). A predicted freshman year GPA is calculated by the Office of Admissions for each new freshman at the time of application using the high school class rank, SAT Verbal and SAT Math scores. New freshmen with a predicted GPA less than 2.25

will be given placement testing. The specific area(s) of placement testing (mathematics, reading, writing) will be determined by the pattern of SAT scores and high school achievement. Students selectively low in one of the admission testing areas (e.g., below SAT Math of 470, SAT Verbal of 480) will have placement testing in areas that are selectively weak.

Depending on the results of the review of the academic record and the placement test scores, an individualized program including a developmental course(s) may be prescribed. Guidelines for developmental course placement are established by the Department of Developmental Instruction, the Department of English and the Department of Mathematics, Computer Science and Statistics. The director of Academic Advisement will provide each student who has been administered a placement test(s) with a report indicating the prescribed program. A copy of this information will also be sent to the student's academic department. If a student is identified for and is placed in a developmental course(s) during the first semester (fall or spring) of attendance, the course(s) is considered a prerequisite before additional courses for credit toward the degree can be taken in corresponding areas (Writing II for English Composition I and Introductory or Intermediate Algebra for all courses that meet quantitative-analytical reasoning general education requirements). This requirement also applies to summer freshmen during their first academic year semester of attendance. Developmental courses will be provided for all identified Act 101/EOP freshmen and for other identified freshmen based upon the available seats in the Department of Developmental Instruction courses.

Student Outcomes Assessment

The university is committed to the continuous improvement of its programs and services. In an ongoing effort to monitor the quality and effectiveness of these programs and services, the university routinely conducts campus-based studies of student attitudes, student achievement, student satisfaction and personal, professional and career development. These studies are grouped under the heading of student outcomes assessment. Participation in outcomes assessment activities is expected of all students. While every student is not selected for participation in every activity, it is likely that an individual student will be involved in one or more assessment activities during the college years. It is only through cooperative participation in the assessment process that the university can better understand itself and better serve its students.

General Education Requirements

Introduction

The College of Arts and Sciences, College of Business and College of Professional Studies at Bloomsburg University of Pennsylvania administer undergraduate curricula. Requirements for the curricula are in sections describing each college.

Each curriculum, leading to a baccalaureate degree, requires successful completion of at least 128 semester hours in the major, general education and free electives. This section deals with general education; requirements for each major are listed under department headings. While electives are unrestricted, it's helpful to consult with a faculty adviser.

When a student makes a tentative choice of a major, preliminary or prerequisite courses required in that major are assigned. Admission is selective or restrictive at the junior year entry level for some curricula. The university is not bound to admit the student if the student is not admissible according to the competition for available spaces or other selective criteria.

Students who plan to major in two departments must have a major adviser in each department and meet all of the major requirements of each department and all of the general education requirements. Double majors in some departments may require more than the minimum 128 semester hours for graduation. Double majors in departments in two colleges must have the permission of both college deans to declare a double major.

Credit, Semester Hour

A semester hour is ordinarily defined as the credit for one weekly period of 50 minutes of lecture, discussion or recitation for one semester. In some cases as in laboratory, studio or internship,

there may not be a one-to-one correspondence between experimental time and credit.

Distribution Requirements

The general education program includes specific course requirements totalling 18 credits, distribution requirements totalling 36 credits and a diversity requirement of two courses. The goals of the general education program are to develop:

- An ability to communicate effectively;
- An ability to think analytically and quantitatively;
- A facility to make independent and responsible value judgments and decisions according to high ethical values and life goals;
- An appreciation of the need for fitness and life-long recreation skills;
- A capacity for assessing the validity of ideas and an understanding of the approaches used to gain knowledge through the development of critical thinking abilities;
- A greater appreciation of theater, literature, art and music through stimulation of one's creative interests;
- An understanding of our society and the relative position of an individual in this society;
- An understanding of the relationship between an individual and his/her physical and biological environments;
- A familiarity with the major contributions of human knowledge in the humanities, social sciences, natural sciences and mathematics; and
- An awareness and global understanding of the relative position of the individual in the world community.

Specific Course Requirements

Communication (9 credits; unless student qualifies for 20-104 Honors Composition in which case only 6 credits are required.) Students eligible for 20-104 Honors Composition are excused from taking 20-101 and one of the second level courses.

20-101 Composition 1 and one of the following:

20-201 Composition 2
20-203 Approaches to Literary Study or a writing-intensive literature course:

20-131 Bible as Literature
20-151 Introduction to Literature
20-152 Literature and Society
20-156 Popular Literature
20-226 European Literature 1
20-227 European Literature 2
20-236 American Literature 1
20-237 American Literature 2
20-246 British Literature 1
20-247 British Literature 2
20-256 Non-Western Literature 1
22-257 Non-Western Literature 2

The remaining three credits in Communication are to be selected from these courses:

09-231 Technical Writing
10-100 Foundations of French Literature and Culture
10-101 French 1
10-102 French 2
10-203 French 3
10-204 French 4
10-205 Applied Phonetics and Pronunciation
11-100 Foundations of German Literature and Culture
11-101 German 1
11-102 German 2
11-203 German 3
11-204 German 4
12-100 Foundations of Spanish Literature and Culture
12-101 Spanish 1
12-102 Spanish 2
12-203 Spanish 3
12-204 Spanish 4
12-205 Phonetic Theory and Practice
13-101 Russian 1
13-102 Russian 2
13-103 Russian 3
13-104 Russian 4

14-101 Italian 1
14-102 Italian 2
16-105 Chinese 1
16-106 Chinese 2
18-101 Latin 1
18-102 Latin 2
20-112 Practical Grammar
20-301 Creative Writing
25-103 Public Speaking
25-104 Interpersonal Speech

Communication

74-153 Introduction to Sign Language

Quantitative-Analytical Reasoning (3 credits)

08-303 Honors Seminar on Quantitative and Analytical Reasoning
40-246 Business & Economics Math 1
40-346 Business & Economics Stat 1
45-260 Basic Social Statistics
48-160 Basic Statistics
53-101 Math Thinking
53-111 Finite Mathematics
53-114 College Algebra
53-118 Applied Matrix Algebra
53-123 Essentials Calculus
53-125 Analysis 1
53-141 Introduction to Statistics
53-241 Probability and Statistics
56-110 Introduction to Computer Science

Values, Ethics and Responsible Decision Making (3 credits)

08-301 Honors Seminar: Values
09-213 Science, Technology and Human Values
09-230 Human Sexuality
28-220 Ethics
28-290 Medical Ethics
28-292 Contemporary Moral Problems
28-295 Business Ethics
28-294 Ethics Politics and Public Policy
41-105 Environmental Issues/Choices
42-210 Values Conflict 20th Cent
42-215 Global Issues: Contemporary Values
44-207 Ethics, Politics and Public Policy
45-320 Sociology of Women
46-102 Anthropology & World Problems
46-260 Men & Women Anthropology Perspective
48-131 Psychology Adjustment
48-254 Psychology Aspects Society Issues
50-254 Social Implications Biology

60.205 Career Development and Life Planning

82.217 Alcohol: Use and Abuse

Fitness & Recreational Skills(3 credits)

05.112 Varsity Sports

05.113 Varsity Sports II

05.149 Aquatics - Begin Non-Swim

05.150 Beginning Aquatics

05.151 Intermediate Aquatics

05.155 Swimnastics

05.200 CPR and Safety

05.214 Fencing

05.217 Bicycling

05.219 Tennis

05.221 Jazz Dance

05.222 Creative Dance

05.223 Modern Dance

05.224 Fitness Dance

05.225 Beginning Ballet

05.226 Jogging / Walking

05.228 Gymnastics

05.230 Weight Training & Fitness

05.231 Archery

05.232 Bowling

05.233 Badminton

05.234 Golf

05.235 Riflery

05.236 Volleyball

05.238 Racquetball-Handball

05.239 Square Dance

05.240 Fitness-Slimnastics

05.241 Judo-Self Defense

05.243 Backpacking

05.244 Orienteering

05.245 Canoeing

05.247 Basic Rock Climbing

05.248 Basic Sailing

05.250 Lifesaving

05.265 Basketball

05.270 Exercise and You

05.271 Intermediate Archery

05.272 Intermediate Bowling

05.273 Intermediate Golf

05.274 Intermediate Tennis

05.275 Intermediate Volleyball

05.276 Intermediate Judo

05.277 Advanced Sailing

05.298 Fitness & Wellness (1 credit only)

05.321 First Aid & Safety (1 credit only)

05.397 Adult Hlth Dev Program (1 credit only)

50.205 Intro to Nutrition (1 credit only)

Distribution Requirements

Thirty-six semester hours are required with 12 semester hours required from each of the three general academic areas of humanities, social sciences and natural sciences and mathematics. No more than three semester hours from a given academic major may count toward this distribution requirement.

Courses which an individual uses to satisfy the specific communication, quantitative/analytical reasoning, values/ethics and fitness and recreation requirements may not be used to satisfy distribution requirements. Bloomsburg University Curriculum Committee (BUCC) or an individual academic department, with the approval of the BUCC, may exclude any of its courses from being counted as a distribution requirement.

In some cases, qualifications exist in the form of prerequisites, two semester continuity, etc. Consult the class schedule, the university catalog or the student information system for prerequisites and other qualifications. Please be aware that not every general education course is offered each semester.

The courses appearing here are approved for general education as of May 1, 1995. If a course was previously listed for general education and does not appear in this class schedule, that course will still fulfill general education credit for the student, provided the student enrolled in the course during the time the course was approved for general education. However, students scheduling the course after the course no longer is approved may not receive general education credit for the course.

Questions regarding courses listed as general education should be directed to the academic department which offers the course.

Courses selected to fulfill the distribution requirements must be from at least three different departments within each of the three groups with two or more credits required from each department selected. Courses which a student uses to satisfy the specific course requirements in the categories of communication, quantitative/analytical reasoning, values/ethics and fitness and recreation may not be used to satisfy the distribution requirements.

Students who otherwise meet the prerequisites are permitted to take any course offered by the departments listed below, unless the course is expressly excluded for general education by the university curriculum committee or the department

with the approval of the curriculum committee.

No more than three credits from a given academic major may count toward the distribution requirement. Students with a double major must adhere to this policy for one of the majors.

Group A - Humanities and the Arts - Select courses totalling 12 credits from these departments:

Art
Art History
Art Studio
Communication Studies
English
History
Languages and Cultures
French
German
Spanish
Russian
Italian
Japanese, Chinese
Latin
Mass Communications
Music
Philosophy
Theatre Arts

In addition, these courses are eligible:

08.101 Honors Humanities I
08.201 Honors Humanities II
09.171 Scholars Seminar Humanities
09.491 Honors Independent Study
Humanities I
09.492 Honors Seminar Humanities
09.493 Honors Independent Study
Humanities II

Group B - Social and Behavioral Sciences - Select courses totalling 12 credits from these departments:

Anthropology
Economics
Geography
Political Science
Psychology
Sociology and Social Welfare

In addition, these courses are eligible:

08.130 Honors Social Science I
08.230 Honors Social Science II
09.172 Sch Sem Soc Sci
09.496 Honors Independent Study Soc Sci I
09.497 Honors Sem Soc Sci
09.498 Honors Independent Study Soc Sci II

70.101 Introduction to Exceptional
Individuals

72.152 Introduction to Communications
Disorders

The following courses are not eligible for
group B credit:

40.246 Business and Economics
Mathematics
40.280 Special Topics
40.346 Business and Economics Statistics I
40.400 Econometrics
40.446 Business and Economics Statistics II
40.470 Senior Seminar
40.480 Advanced Special Topics
40.490 Independent Study
41.350 Advance Planning

Group C - Natural Sciences and Mathematics -
Select courses totaling 12 credits from these departments:

Biological and Allied Health Sciences
Chemistry
Geography and Earth Science
Mathematics (but not computer science
courses)
Physics

In addition, these courses are eligible:

08.110 Honors Math and Science I
08.210 Honors Math and Science II
09.173 Seminar Natural Sciences and
Mathematics
09.495 Honors Seminar Natural Sciences
and Mathematics

The following courses are not eligible for
Group C credit:

50.205 Intro to Nutrition
09.230 Human Sexuality
50.254 Social Implications Biology

Cultural Diversity Requirement

The Cultural Diversity requirement is effective for all degree students entering or re-entering with the fall semester 1993 and thereafter.

Each student must successfully complete two courses from this list of diversity focused courses. These courses may be applied toward courses for the major, general education or free electives.

05.334 Women in Sport
08.130 Honors Social Science I
08.302 Honors Seminar, Diversity
09.230 Human Sexuality
25.220 Intercultural Communication

- 10.211 Foundations of French Culture and Civilization
- 10.212 France Today
- 11.211 German Culture and Civilization I
- 11.212 German Culture and Civilization II
- 12.211 Spanish Culture and Civilization
- 12.212 Spanish-American Culture and Civilization
- 16.211 Chinese Culture and Civilization I
- 16.212 Chinese Culture and Civilization II
- 20.256 Non-Western Literature I
- 20.257 Non-Western Literature II
- 20.287 Black Women Writers
- 20.288 Feminist Reading of Culture
- 20.388 Gender/Race/Class
- 25.494 Special Topic: Diversity
- 25.309 Gender Issues in Communication
- 28.308 Feminist Philosophy
- 31.345 History of Near Eastern Art
- 31.346 History of Far Eastern Art
- 40.313 Labor Economics
- 41.102 World Cultural Geography
- 42.141 Modern Far East
- 42.143 Black Africa
- 42.210 Values Conflict in 20th Century History
- 42.224 Immigrant Experience
- 42.227 American Women
- 42.329 The American Woman
- 42.228 African-American History
- 42.469 Women/Gender Euro 1
- 42.470 Women/Gender Euro 2
- 44.222 Women and Politics
- 44.377 Feminist Political Theory
- 45.215 Racial & Ethnic Minorities
- 45.350 Sociology of Women
- 46.102 Anthropology & World Problems
- 46.200 Principles of Cultural Anthropology
- 46.290 Anthropology of Race and Racism
- 46.310 Aztecs and Mayans
- 46.320 Contemporary World Cultures
- 46.333 Ethnic Identity in the United States
- 46.350 Medical Anthropology
- 46.390 Sociology of the Child
- 46.410 Anthropology of Art
- 46.440 Language & Culture
- 46.450 Peoples & Cultures of South America
- 46.480 Religion & Magic
- 48.350 Psychology of Sex & Gender
- 60.394 Education in an Urban Society
- 60.406 Multicultural Education
- 70.101 Introduction to Exceptional Individuals
- 79.430 Honors Seminar Professional Studies
- 82.410 Community Health Nursing
- 82.450 Transcultural Health Issues
- 90.350 Value of Diversity in Business
- 91.320 International Accounting
- 93.355 Managing Multicultural Organizations
- 97.410 International Marketing
- 98.340 Law and Literature
- 98.407 International Legal Environment
- 98.460 Employment, Discrimination and Affirmative Action

Academic Calendars

Fall 1999

Electronic Registration	Aug. 24-Aug. 30 (2 p.m.)
Classes Begin	Monday, Aug. 30
Labor Day	Monday, Sept. 6 (no classes)
Midterm	Wednesday, Oct. 20, 10 p.m.
Thanksgiving Recess begins	Tuesday, Nov. 23, 10 p.m.
Classes Resume	Monday, Nov. 29 8 a.m.
Classes End	Saturday Dec. 11, 10 p.m.
Reading Day	Sunday, Dec. 12
Finals Begin	Monday, Dec. 13
Finals End	Saturday, Dec. 18
Commencement	Saturday, Dec. 18

Spring 2000

Electronic Registration	Jan. 11 to Jan. 18 (2 p.m.)
Martin Luther King Day	Monday, Jan. 17 (no classes)
Classes Begin	Tuesday, Jan. 18
Monday Classes Meet	Friday, Jan. 21 (no evening classes)
Midterm	Wednesday, March 1
Spring Break Begins	Saturday, March 4, 10 p.m.
Classes Resume	Monday, March 13, 8 a.m.
Spring Weekend Begins	Thursday, April 20, 10 p.m.
Classes Resume	Monday, April 24, 6 p.m.
Classes End	Saturday, May 6
Reading Day	Sunday, May 7
Finals Begin	Monday, May 8
Finals End	Saturday, May 13
Commencement	Saturday, May 13

Fall 2000

Electronic Registration	Aug. 22-Aug. 28 (2 p.m.)
Classes Begin	Monday, Aug. 28
Labor Day	Monday, Sept. 4 (no classes)
Midterm	Wednesday, Oct. 13, 10 p.m.
Thanksgiving Recess begins	Tuesday, Nov. 21, 10 p.m.
Classes Resume	Monday, Nov. 27, 8 a.m.
Classes End	Saturday Dec. 9, 10 p.m.
Reading Day	Sunday, Dec. 11
Finals Begin	Monday, Dec. 12
Finals End	Saturday, Dec. 16
Commencement	Saturday, Dec. 16

Spring 2001

Electronic Registration	Jan. 9 to Jan. 16 (2 p.m.)
Martin Luther King Day	Monday, Jan. 15 (no classes)
Classes Begin	Tuesday, Jan. 16
Monday Classes Meet	Friday, Jan. 16 (except 6 p.m. start)
Midterm	Wednesday, March 6
Spring Break Begins	Saturday, March 10, 10 p.m.
Classes Resume	Monday, March 19, 8 a.m.
Spring Weekend Begins	Thursday, April 12, 10 p.m.
Classes Resume	Monday, April 16, 6 p.m.
Classes End	Saturday, May 5
Reading Day	Sunday, May 6
Finals Begin	Monday, May 7
Finals End	Saturday, May 12
Commencement	Saturday, May 12

Tuition and Fees

(As of July 1, 1999; fees subject to change without notice)

	Pennsylvania Resident	Out-of-State Resident
Tuition (12-18 hours, full time)	\$1,809	\$4,602
Tuition (per semester hour)	\$150	\$383
University Housing		
Double Room	1,087	1,087
Single Room	1,621	1,621
Upper Campus Apartments	1,116	1,116
Meal Plans		
19 Meal Plan, \$100 Flex	805	805
14 Meal Plan, \$100 Flex	721	721
10 Meal Plan, \$100 Flex	669	669
7 Meal Plan, \$100 Flex	586	586
Academic Equipment Fee		
12 or more semester hours	142	142
per semester hour	12	12
Community Activities Fee		
12 or more semester hours	75.75	75.75
per semester hour	6.50	6.50
Student Union Fee		
10 or more semester hours	60	60
7 to 9 semester hours	30	30
1 to 6 semester hours	15	15
Recreation Fee		
12 or more semester hours	75.75	75.75
per semester hour	6.50	6.50
Student Union Operations Fee		
12 or more semester hours	28	28
per semester hour	2.50	2.50
Health Service Fee (9 or more hours)	37	37

About Tuition

Tuition (also known as the basic fee) covers the cost of courses you will take, but does not cover books and supplies. Tuition is established annually by the State System of Higher Education board of governors, usually in July, after the state legislature determines support levels for higher education in

the commonwealth. The Commonwealth of Pennsylvania provides approximately \$5,102 per full-time equivalent student to the State System of Higher Education in support of each student's education and the difference between in-state and out-of-state tuition reflects this support. Tuition is the same for all 14 state system of higher education universities. For course loads over 18 semester hours, Pennsylv-

nia residents pay an extra \$150 per semester hour and out-of-state residents pay \$383.

Tuition Refunds -The university is responsible for notifying each student of its refund policy.

Advance deposits credited toward the basic fee are non-refundable. Other amounts paid and credited toward the basic fee are refundable in full for students who withdraw for approved reasons prior to the first class day. Students who reduce their credit hour load so as to qualify for billing as part-time students are eligible for a refund of the amount paid which exceeds the part-time rate.

Tuition fees are eligible for refunds when the student withdraws from the university. All refund requests must be submitted in writing and comply with the appropriate institution's processing procedures. Refunds on student activity fees will be within those regulations and procedures established by the student organization, as approved by the president of the university. Such refunds must be consistent with Federal law. A student is eligible for consideration for a refund for any reason approved by the president or the president's designated official. The refund schedule applies also to all part-time students reducing their credit hour load. Except for minimum forfeit of advanced deposits, refunds for tuition are based on the following schedule, effective July 1, 1995: First day — 100 percent

- First through second week — 90 percent
- Third through fourth week — 50 percent
- Fifth through eighth week — 25 percent
- After the eighth week — no refund

Full refund of tuition is granted to students of State System universities who are military reservists or members of the National Guard and are ordered to active military service by the President of the United States.

With respect to room and board fees, all refund schedules apply only to conditions in which students withdraw entirely from the university.

The following is the schedule of refunds to aid recipients under Title IV of the Federal Higher Education Act, as amended, who are first-time students at this university and receiving Federal financial aid:

- First Week — 90 percent
- Second Week — 80 percent
- Third Week — 80 percent
- Fourth Week — 70 percent
- Fifth Week — 60 percent
- Sixth Week — 60 percent

Seventh Week — 50 percent

Eighth Week — 40 percent

Ninth Week — 40 percent

Tenth Week — 0 percent

Eleventh Week and beyond — No refund

Housing Fees

Housing fees for on-campus residence are established annually, usually in the Spring by the Bloomsburg University Council of Trustees. Most available housing is double occupancy in seven residence halls and an apartment complex accommodate a total of 2,680 students. Although students¹ housing preferences are considered whenever possible, the university reserves the right to alter the composition of residence halls.

Housing and food services are provided on a combined basis only for students living in the residence halls. Students living in the Montgomery Place Apartments have the option of a meal plan. Housing and food service agreements are binding for a specified period and may not be transferred or reassigned.

Freshmen under 21 years of age must live on campus or commute from their parent's residence. If extenuating circumstances justify other housing arrangements, a written request for waiver of this residency requirement must be submitted to the director of Residence Life, ground floor, Elwell Residence Hall, Bloomsburg University, Bloomsburg, PA 17815.

Transfer students, upon acceptance to the university and payment of the advance deposit, are eligible for on-campus housing on a space available basis, but married students and/or students with families whose housing needs are atypical are not eligible.

Students must participate in an assignment process for housing on upper and lower campus to reserve a room for the following academic year. Eligibility requirements are subject to revision in response to fluctuations in enrollment figures and student demand for on-campus accommodations.

Further information concerning on-campus or off-campus housing may be obtained by contacting the Residence Life Office at (570) 389-4089.

Summer session residence hall cost is \$55 per week.

Arrangements for room guests must be approved by the resident director of the hall where the guest will be housed.

Meal Plans

Meal plan fees are established annually, usually in the Spring, by the Bloomsburg University Council of Trustees. All students who live in the residence halls are required to take their meals in the campus dining hall under one of two food service plans during the academic year. Food service fees are payable with the housing fee as a combined charge. Housing and food service fees are the same for Pennsylvania residents and out-of-state students. The 19, 14, 10 and seven meal plans apply to any meals served in the dining facilities Monday through Sunday. Ten and seven meal plans are available only to off campus or upper campus residents. No changes to meal plans are processed after the second week of the semester.

Charges for dining hall meals are adjusted annually after the end of the academic year. The adjustment under the food service contract, currently in force, is based on the wholesale price index.

Students who live off-campus or in the Montgomery Place Apartments have the option of purchasing a meal plan at the Business Office in Waller Administration Building.

The meal plan provides a cash equivalency option which allows students to purchase a certain dollar amount at each meal in the various food facilities on campus including the pizza shop and snack bar. After making a selection, the cash price of the meal is totaled. If the cost is under the prescribed amount, there is no charge. If it exceeds this amount, the difference must be paid in cash or in flex dollars. One cash equivalency meal equals one board meal.

Flex dollars, which are part of the meal plan and may be purchased separately by students living off-campus or in the Montgomery Place Apartments, broaden a student's options. These dollars can be used at any food facility. Each time a student uses flex dollars, the expenditure is subtracted from the balance of the student's flex account. Students living in the residence halls can add to their flex account in increments of \$25. Students living off-campus and in the Montgomery Place Apartments can purchase flex dollars at the Business Office in \$25 increments once they have made an initial minimum deposit of \$100 into their flex account.

The flex balance carries over from fall to spring semester only. Any balance left at the end of the spring semester is not refundable and cannot be transferred. Students may, however, purchase gift

certificates with the balance of their flex accounts, valid until the following October. These gift certificates are honored at all campus dining facilities. Students should use all monies in flex accounts.

Academic Equipment Fee

The Academic Equipment Fee, established by the Bloomsburg University Council of Trustees, essentially covers the cost of maintaining laboratories, such as scientific and computer labs and equipment used by students. It is established on an annual basis.

Community Activities Fee

The Community Activities Fee, established by the Community Arts Council, finances student activities in athletics, recreation, music, lectures, student publications, general entertainment, student organizations and other student-supported programs. Part-time students taking coursework on campus are required to pay the Community Activities fee at the rate of \$6.50 per semester hour.

Student Union Fee

Students are charged a Student Community Building Fee, established by the Community Government Association, which pays for the Kehr Union Building.

Student Union Operations Fee

Students are charged a fee to provide for the day-to-day operations cost of Kehr Union. The fee is established by the Community Government Association.

Recreation Fee

Students are charged a Recreation Center fee, established by the Community Government Association, which pays for the facility and entitles the student to use the center for recreational purposes.

Health Service Fee

All students carrying nine or more semester hours are assessed a \$37 Health Service fee per semester. Students scheduling 8 semester hours or less will not be assessed a Health Service fee. The fee is established annually by the Bloomsburg University Council of Trustees. The fee is not a substitute for health insurance, which students are required to have or obtain. Faculty and staff who schedule academic courses are not assessed a Health Service fee. Student teachers and/or students on internships

who are not residing in the Bloomsburg area are not liable for this fee; they may request, in writing, an exemption from the Business Office. Students registered in extension courses also are not assessed a health fee. Health services are available only to students who pay a health fee. All students enrolled in a summer session are assessed \$1 per week for the length of the session(s) for health services. The monies collected from this fee pay for the health service that has been designated by the Pennsylvania Legislature as an auxiliary function of the institution. These funds are expended for the professional salaries related to health services, plus the cost of the Hospital Emergency Room Fee Waiver Contract and other service contracts, i.e., ambulance service, family planning, medical supplies, utilities and the self-care unit.

Miscellaneous Fees

Diploma Fee - A diploma fee of \$10 is charged at graduation for a bachelor's degree or a master's degree.

Transcript Fee - A \$3 fee is charged for each official transcript of a student's record and \$1 for an unofficial transcript. There is a \$3 charge for faxing as applicable.

Late Registration Fee - A late fee of \$10 is charged to a student who completes registration after the official registration date.

Application Fee - A \$30 application fee must be paid by each applicant, undergraduate and graduate, at the time of request for registration. The application fee is not refundable.

Key Replacement - A \$30 fee is charged for replacing a room key and \$5 for a mailbox key.

Credit by Examination - A fee of \$30 is charged for examinations that allow students to receive credit for a course without actually taking the class.

Orientation Fees

There is a one-time administrative orientation fee of \$25 paid to the Business Office at the initial billing. A participatory fee for the orientation program held on-campus is included with the registration for the program and paid directly to the Orientation Office. Participatory fee for orientation:

- \$52 for fall freshmen
- \$10 for January freshmen
- \$25 for fall transfer students

- \$10 for January transfer students
- \$20 for summer freshmen
- \$18 for Developmental Instruction students
- \$10 for January Developmental Instruction students
- \$7 for adult non-traditional students

Books and Supplies

Books and supplies are estimated at \$170 per semester. Students may secure books and supplies at the University Store. The store operates on a cash basis.

Payment of Fees

A nonrefundable advance registration fee of \$100 is due when an individual is approved for admission as an undergraduate student or when a former student is approved for readmission. This fee is credited to the first basic fee payment. The advance registration fee (\$100) is not refundable.

The Community Activities Fee for one semester is due when a student is approved for admission or when a former student is approved for readmission after being out of school for one or more semesters. A \$100 advance housing deposit, of which \$50 is refundable, is required to reserve a room accommodation and negotiate a housing contract for the academic year. The deposit must be paid prior to room assignment and is credited to the housing charge for the current semester.

Bank drafts, post office money orders or checks must be made out for the exact amount of the fee. Fees are payable to Bloomsburg University.

Fees are due at times determined by the Business Office. The university reserves the right to withhold information concerning the record of a student who is in arrears in fees or other charges including student loans.

The university does not offer a time payment plan. Billing statements of student accounts are mailed prior to registration each semester. Failure to comply with the directive concerning payment excludes the student from registration.

Inquiries concerning fees may be addressed to: Director of Accounting, Business Office, 22 Waller Administration Building, Bloomsburg University, 400 E. Second St., Bloomsburg, PA 17815.

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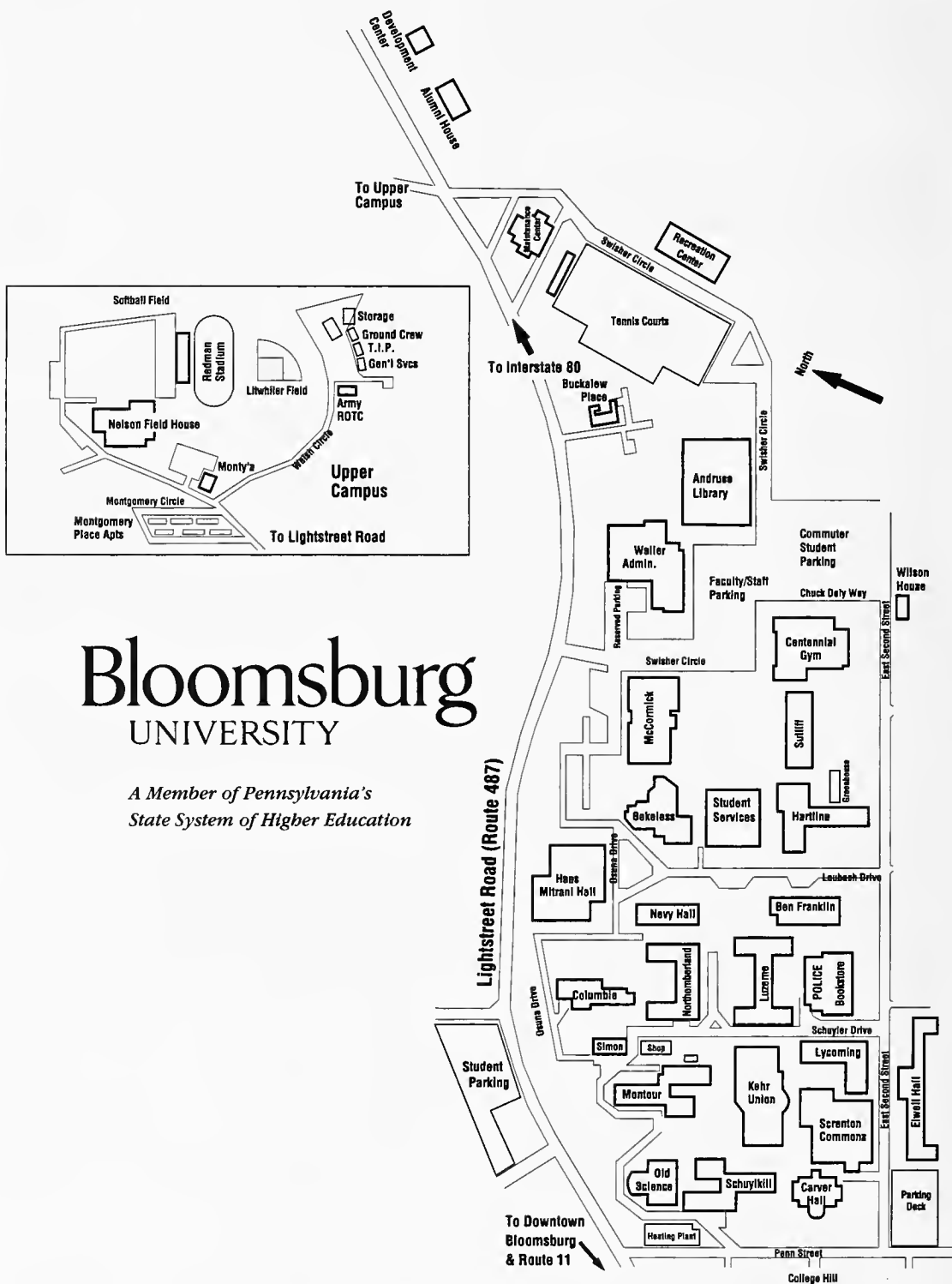
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